THE FAR EASTERN REVIEW

FOUNDED BY GEORGE BRONSON REA
36TH YEAR OF PUBLICATION

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JAPAN AND THE EUROPEAN WAR

JAPAN'S MESSAGE TO AMERICA

EFFECTS OF THE WAR IN EUROPE

遠東時報

上海黃浦灘念四號

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No. 6

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The Far Eastern Review

ENGINEERING FINANCE COMMERCE

VOL. XXXVI SHANGHAI, JUNE, 1940 No. 6

FAR EASTERN CROSS-CURRENTS

Informed Tokyo sources here were responsible for an assertion that important developments affecting Japan's international position could be expected soon.

While unable to predict the exact nature of the expected events, the informants said that indications pointed to a show down between the Yonai government's desire to improve relations with the United States and the demands of an aggressive minority that Japan link her destiny with the Italian-German alliance.

The growing feeling in the United States that an understanding should be reached with Japan may prove to be the opening that the Yonai cabinet has been awaiting. There is powerful sentiment among business interests and government officials in favor of concluding a new commercial treaty with America's if the opportunity arises.

Against that program is arrayed a minority which favors Japan's participation in the European war as a means of furthering the so-called "southward expansion policy" aimed at increasing Japan's activities and interests in the Netherlands East Indies, Malaya and French Indo-China.

The cabinet of General Nobuyuki Abe collapsed because it was unable to carry out its promise to bring a satisfactory solution of the China war. The Yonai Government, which has been in office since January 16, will suffer the same fate unless it produces results soon. At the moment it is susceptible to the charges that it has accomplished nothing and its opponents are making the most of their opportunity.

The sympathies of the Premier, Admiral Mitsumasa Yonai, are with a program of closer co-operation with the United States, Great Britain and France—and since his tenure of office hangs on his ability to show progress beneficial to Japan, it is expected that he will make his bid in the direction dictated by his own feelings.

It was Admiral Yonai who, as navy minister in the Hiranuma cabinet, last spring blocked the efforts of the militarists to put through a military alliance between Japan, Germany and Italy. Some of the same forces which opposed him then are now working for the downfall of the Yonai Cabinet.

The movement against Yonai came into the open with the resignation of Mr. Fusanosuke Kuhara from the Cabinet Advisory Council. Before he stepped out Mr. Kuhara suggested to Admiral Yonai that the entire Cabinet quit. Admiral Yonai rejected the suggestion and Mr. Kuhara brought the fight before the people with his own resignation and a sharp public attack upon the "weak-kneed" Yonai policies.

Single Party System

The movement for the establishment in Japan of a single political party, launched recently by Mr. Fusanosuke Kuhara as president of the orthodox Seiyukai Party, has gained such momentum and assumed such impressive proportions that political circles now are confident it will be realized in the near future.

This belief is borne out by the fact that the Minseito Party has intimated strongly that it would lend its support only if Prince Fumimaro Konoye, President of the Privy Council, can be prevailed upon to assume the leadership of the projected party.

When asked recently whether he would be willing to head the new political party, Prince Konoye took up his usual non-committal attitude in such matters, saying he would consider participation when certain that it would grow into a strong organization.

He expressed the opinion that unless a new strong political party was created it would be impossible for Japan to tide over the difficulties confronting the nation; that the dissolution of the existing parties and a re-grouping of their members would have no meaning but that the new party must represent the will of the entire nation and be organized along the lines of the new political needs felt by the Japanese people to-day. "Old political ideas, embraced by politicians, should be eliminated from the new party," the President of the Privy Council declared.

Displaying his usual aptitude of frankly stating his views on a vital current issue, Prince Konoye added: "With regard to the military, of course, our co-operation will be necessary. But it would never do to dance attendance on the military or dance to whatever tune they play. We should offer them good counsel even if it may not always be pleasing to them. The military, on their part, should be broad-minded enough to lend an ear to what is offered them. But this does not mean any pressure against the army or any opposition. If we are only to be 'yes-men' to the army, it would be a far sight better to have a military régime in a full sense of the term."

Urges Aid for Nazis

Mr. Toshio Shiratori, former Japanese Ambassador to Rome interviewed by the United Press urged Japan to exert the "fullest diplomatic and economic efforts on behalf of Germany."

Mr. Shiratori, who is awaiting assignment from the Foreign Office after the rejection of his efforts to promote a Japanese military alliance with Germany and Italy, said he did not favor military action in aiding Germany, however.

"Our place is with the totalitarians," he said. "While I disfavor military action on this point, I advocate the fullest diplomatic and economic efforts on the behalf of Germany.

"There is a growing demand to Join Germany which will be intensified in the event Italy participates in the war.

"I am afraid, however, that intervention would be too late, because important decisions of the past decade have been the result of direct action. It now appears impossible to take direct action to force the Government's hand.

As long as Admiral Yonai is Premier the democracies have nothing to worry about. However, in the event the average is maintained and there should be a new cabinet soon, it inevitably would have stronger policies.

Mr. Shiratori revealed that during a conversation with Field Marshal Hermann Goering, the German Air Minister, last year, Marshal Goering said, "The next war will be ended before America can send help."

Advises Moderate Policy

Predicting an attack against the United States in the event of a German victory in the European war, the influential *New York Daily News* suggested that the United States immediately make friends with Japan in order to have an ally instead of an enemy in the Pacific.

Should the Nazis win the war and grab the British Navy, the United States might easily be menaced with urgent trouble in the Atlantic and Pacific at the same time, the journal declared in an editorial entitled, "How to Double The Fleet In A Week."

America can avert a double attack by making friends with Japan, who has made many gestures for renewal of the trade treaty, the *Daily News* said.

"We live in a world where realistic people and nations stand a much better chance of surviving than do idealists," the editorial said.

"Ever since Japan attacked China, this country has been unofficially helping the Chinese. That is very noble, but the policy of always befriending the weaker side has its dangers. Look what this policy has done to the British!"

Washington Non-Committal

The Under-Secretary of State, Mr. Sumner Welles, failed to show either official welcome or distaste regarding suggestions that the United States and Japan settle their quarrels in the Pacific in order that both might concentrate on protecting their own frontiers.

Mr. Welles' bland, diplomatic language gave conventional replies to press questions regarding reports of a movement to improve Japanese-American relations and possibly to reach an agreement to preserve the *status quo* in the Far East.

Asked to comment on editorials suggesting that steps to improve United States-Japanese relations would be timely, Mr. Welles said the United States would always be glad and anxious to improve relations with any country, provided American policies toward other countries made this possible.

Asked whether specific negotiations were in progress, he said the United States have been carrying on frequent talks with Japan regarding China, such as the protection of the interests of their nationals, but nothing particularly new has been started.

When asked if he was hopeful of better Japanese American relations, Mr. Welles said, "We are always hopeful."

The columnist, Mr. Walter Lippman, in his column advocated that adjustments be made with Japan in view of increased United States concern over the situation in Europe. The United States would obviously wish to tranquilize the Pacific if she became involved in the European war, he said, while Japan would benefit from an early termination of the Sino-Japanese hostilities by recouping her economic strength.

Embargo on Machine Tools

The Washington Administration has decided to place an embargo on the export of machine tools from the United States, it was announced on June 5.

The decision to apply the embargo was disclosed when the Councillor to the Japanese Embassy inquired at the State Department whether the United States would consider the extension of the moral embargo against Japan to include machine tools.

He was informed that the tool embargo would be inaugurated, but not as part of the moral embargo. The decision to place an embargo on the export of machine tools was occasioned by national defence needs and will apply to all countries, at least for the present, the State Department told the Japanese.

The Administration has already stopped some shipments of tools to foreign countries because of the shortage in the United States, which has been blamed for the bottleneck in aircraft engine production.

Although the embargo intended to apply to all countries at present it will probably affect Japan more than any other nation, because Japan has recently depended largely on supplies of such materials from the United States, according to the Department of Commerce.

Last year, Japan obtained 50 per cent of all of its machinery imports from the United States. Machine tools comprised a large portion of such imports, according to experts. Furthermore, Japan in the last four years, has vastly increased such purchases in the United States.

Explains Embargo

Prior to the enforcement of the United States Government's new embargo on the export of machine tools, aeroplane engines and other machine parts, State Department authorities explained to Mr. Morito Morishima, Councillor of the Japanese Embassy here, that the embargo move was necessitated by the consolidation of the defences of the United States and was applicable to all foreign countries.

Mr. Morishima, it was disclosed, recently inquired of State Department officials their attitude regarding reports that the United States Government was planning to prohibit the exportation of machine tools and other metal wares as an extension of the present moral embargo against Japan.

State Department authorities, it was disclosed, replied at that time that the new American embargo move did not constitute part of the moral embargo, but was necessitated by the requirements of American defence.

Japan's Policy Toward War

Japan's policy of non-involvement in the European war is far more than mere aloofness from the fighting in Europe; it is an essential stand to enable Japan to play its part whenever the situation becomes clarified sufficiently to permit the possibility of a settlement, according to Mr. Yakichiro Suma, Foreign Office information bureau director.

Mr. Suma denied that Japan's avowed rôle in the European struggle is passive in a radio broadcast. He said the non-involvement policy actually means involvement in the sense that Japan is determined to prevent the European conflict from spreading to East Asia.

Mr. Suma placed particular stress on Japan's reiterated concern for maintaining the *status quo* in the Netherlands Indies, asserting that this policy, like the policy toward the war in Europe, is based solely on the aims of the China incident and has nothing to do with treaty on which the United States Indies stand has been based.

In echoing Japan's official wish for the maintenance of the *status quo* in the Netherlands Indies, Secretary of State Cordell Hull pointed out that America, Japan, Great Britain and France are obliged by a convention signed in Washington to pay full respect to that very principle.

Mr. Suma recalled that at the outset of the present European war Japan announced that its policy was to be one of non-involvement. It is designed at the same time, he said, to prevent the spread of the European war to the Far East.

"This policy of non-involvement therefore must not be interpreted as a merely passive policy by which Japan plans to do nothing, but it is an essential condition for the realization of Japan's objectives in the China campaign," he declared.

The policy has a positive meaning in connection with the destiny of Asia, and in the sense of preventing the spread of the European war to Asia it may be termed a policy of involvement, he asserted, continuing:

"As Japan now is engaged in the construction of a new order in East Asia, it absolutely must prevent the spread of the European war to East Asia, for the present is a time of rebirth in Asia.

"It was for that reason that Foreign Minister Hachiro Arita warned the belligerent Powers to respect the maintenance of the *status quo* of the Netherlands Indies. Britain, France and Germany assured Japan that they had no intention of intervening in the Netherlands Indies, and Secretary of State Hull said the United States would respect the status of the Netherlands Indies but stressed that this policy was based on the four-Power agreement of 1921.

"That is the point I want to emphasize. The Japanese Government's statement regarding the *status quo* of the Netherlands Indies is an expression of Japan's intention and an inevitable consequence of its determination to bring the China affair to a satisfactory conclusion. It has nothing to do with the four-Power treaty."

The Foreign Office spokesman asserted that as far as the war in Europe is concerned Japan maintains a policy of aloofness from the belligerents, taking sides neither with Germany nor with the Allies.

"In this respect," he said, "there is a heaven-and-earth difference in the attitudes of the American and Japanese Governments. America, while giving both visible and invisible assistance to Britain and France, avows a policy of neutrality. The contrast with the just policy of Japan is clearly evident.

"Japan's policy may be called one of non-involvement in the sense of excluding the calamities of the present European war from East Asia. It must maintain this policy of non-involvement so that it may be able to participate when the light eventually dawns in this gloomy world."

The American Viewpoint

Discussing Tokyo reports of Japan's insistence on maintenance of the *status quo* of the Netherlands Indies, Secretary of State Cordell Hull reiterated that any change in their status would be prejudicial to the stability of peace and order in the Pacific area.

The United States Government assumes, he said, that Japan, Great Britain and the United States will continue to abide by their recent official declarations regarding the position of the Netherlands Indies. He said the three Powers' positions are based on the four-Power agreement concluded in 1922, pledging them to respect the territorial *status quo* in the Pacific area. The United States, he declared, does not intend to alter its attitude in this respect in any way.

Fully Prepared in London

The Netherlands Foreign Minister, Mr. E. N. van Kleffens, in affirming Dutch determination to resist the Nazi invasion, told the press that the Netherlands Indies are fully prepared for any eventuality.

"There are strong air, land and sea forces in the Netherlands Indies," he said, adding that 120 of the latest-type American bombers, 100 fighters and the greater part of the Dutch navy will stay in the Far East.

It was disclosed authoritatively that Allied units have been landed in the Netherlands West Indies to prevent possible Nazi sabotage of the oil refineries there, for the local Dutch forces are insignificant and would be unable to prevent such German attempts. It is understood the Allied troops have been landed in Curacao and Aruba.

It is said that the Allies consulted the Netherlands Government before taking the step and officially informed the United States Government.

Gives Japan Free Hand

The announcement on May 22 to Foreign Minister Hachiro Arita that the German Government is not interested in the question of the Netherlands Indies is interpreted by the vernacular press as constituting an "inducement" to Japan and as an offer of "blank power of attorney" to this country for any decision it may desire to take regarding the Dutch colony.

The reply of the German Government to Japan's statement of May 11 setting forth Japan's position regarding the Netherlands Indies is understood by the *Nichi Nichi* as going beyond the replies submitted by the British, French and Netherlands Governments, which expressed agreement with Japan's desire to see that the *status quo* of the colony be observed.

The German reply, conveyed to Foreign Minister Arita by the German Ambassador, Major-General Eugen Ott, is said to imply that the Reich intends to respect the general position of Japan in East Asia. The *Nichi Nichi* says there is a strong temptation to read into the German communication something more than a reply to Japan's statement on the Indies and to see a "move of inducement to Japan."

The *Yomiuri* says that grave significance is attached by the Government to Germany's willingness not to interfere with the Netherlands Indies regardless of how the situation regarding them may develop in the future. The German note, adds the paper, may be interpreted as an offer of "blank power of attorney for Japan" regarding the handling of the Indies question.

British Assurances

Great Britain on May 13 reassured the Japanese Government that it shares fully Japan's concern that there should be no change in the present administrative status of the Netherlands Indies, while increasing concern in that matter was being evinced in all quarters in Tokyo.

The British reassurance was transmitted by the British Ambassador, Sir Robert Craigie, in an official response by his home Government to Foreign Minister Hachiro Arita's notification of Japanese concern lest the German invasion of the Netherlands cause some change in the Netherlands Pacific territories.

A Foreign Office announcement of the Arita-Craigie meeting is given by Domei as follows:

"The British Ambassador, Sir Robert Craigie, called on Foreign Minister Hachiro Arita at the latter's official residence with the reply of his home Government to the representation made by Foreign Minister Arita on May 11 regarding the Netherlands Indies.

"Ambassador Craigie told Foreign Minister Arita that the British Government fully shares the Japanese Government's concern over the Netherlands Indies but believes the Dutch forces in the Netherlands Indies sufficient for maintenance of the *status quo* of those islands, while Great Britain has no intention whatever of intervening there.

Concern In Tokyo

According to the *Kokumin* and the *Miyako*, much attention has been attracted here by the assertion of the Netherlands Foreign Minister, Mr. E. N. van Kleffens, in a radio speech given that the Netherlands will pool all its resources with those of the Allies for joint use in fighting the Nazis. It is attracting attention because it implies that the resources of the Netherlands Indies will be reserved for Allied use.

If such reservation is made, says the *Miyako*, it is very doubtful whether Japan will be able to obtain from the Netherlands Indies its usual supplies of petroleum, ferrous ores, scrap iron, tin and rubber, all materials of the utmost importance.

It also is possible that exchange control will be strengthened in the Netherlands Indies as it has in the territories of England and France. Such strengthening might make it difficult for Japan to sell to the islands as much as hitherto, amounting to more than Y100,000,000 yearly.

The Netherlands Trading Society, in Kobe, is said by the *Miyako* to have sequestered about Y1,600,000 of deposits of German nationals. The Finance Ministry is watching to see whether the Netherlands India Commercial Bank, which has offices in Tokyo and Kobe, does likewise.

Such sequestration is not illegal, for Article 19 of the Banking Law provides that "when a bank makes an official announcement, pointing out a due reason, and submits to the Government a report to that effect, such action is not illegal."

The final attitude of the Government, however, will be determined, the newspaper says, in accordance with "developments in the real situation."

Regarding Exports

The Netherlands Minister, General J. C. Pabst, informed the Japanese Foreign Minister Hachiro Arita that the Netherlands Indies will not be able to export to Japan as large quantities of petroleum, rubber, zinc, nickel and other materials as in the past because of Allied needs for prosecution of the war against Germany, the *Kokumin* understands.

Foreign Minister Arita is believed to have repeated the position of the Japanese Government that it will not tolerate any change in the military, political or economic *status quo* of the Netherlands Indies and will not permit any restrictions on exports of the Dutch colony's supplies to Japan.

The Netherlands envoy is reported to have declared that the shifting of the Netherlands Government to London does not imply that the Netherlands has changed its policy to conform to that of the British Government.

The *Kokumin* says, however, that protection of the Netherlands Government by the armed forces of another country is bound to affect Dutch possessions.

The paper also believes there is no question but that the Netherlands Indies are part of the Asiatic Continent and that the Japanese Government therefore cannot permit exports of the colony even to its mother country to be increased as this would interfere with Japan's policy of establishing a new order in East Asia. Proposed restrictions on exports from the Netherlands Indies to Japan are being viewed with profound concern, says the *Kokumin*.

Anxiety Unabated

Japanese anxiety for maintenance of the *status quo* of the Netherlands Indies has been left unabated by explanations by the Netherlands secretary of reasons for permitting Anglo-French armed forces to land in the Netherlands West Indies, according to Domei and the *Asahi*, both of which expect further inquiries to be made in The Hague and in London.

The assistance of Anglo-French armed forces in the Caribbean holdings of the Netherlands is regarded as in some way a betrayal of the Netherlands' official assurances that no third nations would be requested to safeguard Dutch colonies in the event of involvement of the Netherlands in the war in Europe.

Although Japan sought some such assurances chiefly with regard to the Netherlands territories in the Pacific, the acceptance of Allied armed assistance in the Caribbean is considered incompatible and possibly establishing a precedent for similar measures elsewhere, despite distinctions made by the Netherlands secretary, Jonkheer O. Reuchlin.

Jonkheer Reuchlin called on Mr. Yutaka Ishizawa, Foreign Office European and Western Asiatic bureau director to exchange information on the war situation. Mr. Ishizawa is said to have explained the Japanese conception of the action in the West Indies as being incompatible with the Netherlands' announced policy of non-reliance for outside protection for its colonial holdings.

By way of explanation, Jonkheer Reuchlin is said to have confirmed reports of Allied landings on Curacao and Aruba, off the northern coast of Venezuela, but to have contended that the situation there does not apply to the Netherlands Indies, about which Japan is concerned for the peace of East Asia.

The West Indies, Mr. Ishizawa was told, possess no armed forces for defense. The number of German technical employes at refineries for Venezuelan oil, however, is said to be quite large. Therefore, it was deemed wise to land armed forces as a precaution against possible riots being incited among the natives.

Mr. Ishizawa thereupon suggested that surely the West Indies have a police force to handle such situations and that the Japanese Government cannot overlook the presence of British and French troops in the West Indies, in view of their relationship with the Netherlands' Pacific islands.

Chinese Feted in Japan

The Emperor of Japan received in audience in the Phœnix Hall of the Palace Mr. Chen Kung-po, President of the Legislative Yuan of the new Nanking régime and chief of the Chinese mission now visiting Japan, according to Domei.

Dressed in a military uniform and attended by Admiral Saburo Hyakutake, Grand Chamberlain, and Lieutenant-General Shigeru Hasumuma, Chief Aide-de-Camp, the Emperor received the visitor, who reported to the Throne on his mission.

Following the audience, Mr. Chen went to the Seiyoken restaurant, Ueno Park, for a talk lasting about an hour with Prince Fumimaro Konoe, President of the Privy Council. Later, other members of the Chinese mission attended a reception there under the joint auspices of various organizations interested in China affairs and the Tokyo press. The six representatives of the Chinese press who also are visiting in Tokyo were present.

Mr. Chen and Dr. Chu Min-i, Nanking Foreign Minister, called on the Premier, War Minister, Navy Minister and Finance Minister at their official residences in the afternoon for an exchange of views.

No nation can continue to exist under the present changing world order if it closes its eyes to present happenings, declared Prince Konoe at the luncheon for the visiting Chinese delegation, Domei reports. His speech is reported as follows:

"It is a matter for great congratulation that the new National Government of Nanking, which is the true Government of the Chinese people, has been established at Nanking, as this marks the beginning of the disposal of the China affair and is a step toward the construction of a new world order.

"The reconstruction movement in China has been placed on the right track but the outbreak of the European war has brought about unrest and a complex and intricate situation.

"In your country, you are conducting an anti-Communist and pro-Japanese and national reconstruction campaign along the lines mentioned by me, I trust.

"If a nation puts its heart and soul into the building of a new order on humanistic principles and with undaunted spirit under a carefully thought out plan, I feel convinced that sooner or later the other nations of the world will have to take part in the construction of a new order after the example set.

"The construction of a new order in East Asia is based on the spirit of the founding of the Japanese Empire and is the desire of the Japanese race. For this reason, all the miseries and hardships the Yamato race may have to suffer in the achievement of this great task will only be an encouragement and a joy. Because of our unfailing conviction of the righteousness of our conduct and of our final victory we are pushing our crusade.

"I would like to take this opportunity to convey to your people the conviction and faith of the Japanese in this campaign and at the same time I ask you to do your best for the reconstruction of your nation without any suspicion of the faith of our country."

Italy Welcomes Japanese

Telegrams from Rome report that the Japanese mission to Italy, headed by Mr. Naotake Sato, former Foreign Minister and Ambassador to France, was accorded a festive welcome as the party arrived in Rome from Naples. It was welcomed at the Central Station by Foreign Minister Galeazzo Ciano. Mr. Ettore Muti, secretary of the Fascist Party, and scores of high Italian Government, political and military leaders.

The station was beflagged with Japanese and Italian colors and as delegates drove to the Grand Hotel their headquarters for eight days, thousands lined the streets to give them a welcome.

The mission will begin calls on Italian leaders after a visit to the Quirinale Palace and paying respects at the graves of the Italian kings at the Pantheon. Mr. Sato will broadcast a message to the Italian people, and the mission will be received by the King and Pope Piux.

Urges Pro-Soviet Policy

Mr. Sun Fo, President of the Legislative Yuan of the Chungking Government, recently proposed to the Supreme National Defense Council and the Foreign Ministry that China adopt a pro-Soviet policy in view of the rapid changes in the international situation and the advance of the German forces along the Western Front. The suggestion has attracted wide attention.

On the other hand, General Chiang Kai-shek, Mr. Wang Chung-hui and other high officials have merely agreed to give the matter careful consideration in view of relations with European nations and in particular with the United States. No definite decision has been reached.

It is also learned that Mr. Sun's proposal has given rise to aggravation of the friction between the pro-Soviet group, the pro-European faction and the pro-American group regarding China's diplomatic policy.

The proposal, moreover, has not met with the full approval of the Chinese Communist group, as the left-wing faction is against the pro-Chiang policy of Britain and the United States.

Mr. Sun is now being rumored as a possible candidate for the presidency of the Legislative Yuan.

Urges Exchange of Naval Plans

The Secretary of the Navy, Mr. Charles Edison, in his first statement to the press on his return from fleet manœuvers in the Pacific Ocean, challenged the Japanese Government to exchange naval construction information with the United States Government.

Secretary Edison's invitation was made when he was informed that a Japanese spokesman had described as "mere propaganda" the recent declaration by Admiral Harold R. Stark, Chief of Naval Operations, that Japan is believed to be constructing secretly a large number of super-battleships. Admiral Stark's views were expressed to the naval affairs committee examining requests for naval appropriations.

Of his sojourn with the fleet in the Pacific, Secretary Edison said the manœuvers had revealed the United States Navy to be in a high state of efficiency.

He expressed concern, however, of the present vulnerability of warships to air attacks. He said the Navy Department is considering improved designs for the superstructure of battleships to afford better protection for fire control stations and guns crews.

Mr. Edison pointed out that even though a bomb dropped from the air fails to sink a battleship it can impede operations through damages to communication and fire control systems.

Ultra-modern battleships, to be best adapted to resist air attacks, he said, must be redesigned from the keel up, but he thought existing vessels could be modernized to improve existing protection from bomb fragments.

Tea Leaves from Lo Pat's Garden

by Shamus A'Rabbitt

He who has no sentiment in business
Will find it hard to fulfil a deed of trust
When he is in need of funds.

◆◆◆◆◆◆

He who is too busy for friendship
Allows the apples of Life
To fall and rot on the ground of Time.

◆◆◆◆◆◆

We notice that often those who are bored
To attend dinner parties are peevish
When left out.

◆◆◆◆◆◆

The desire to be worthy of the esteem
In which we are held by our friends
Is a passport to virtue.

◆◆◆◆◆◆

To accept unmerited praise
Is to slam the door
In the face of Fame.

◆◆◆◆◆◆

Merited virtue
Can be as entertaining
As an agreeable vice.

◆◆◆◆◆◆

The silent man may possess great qualities
But as with the egg they are unknown
Until the shell is broken.

◆◆◆◆◆◆

Economy is often the father of vice.

◆◆◆◆◆◆

When criticism sprouts
From the marital tree
The leaves of love begin to fall.

◆◆◆◆◆◆

It is not that women are more nervous
Than men
But that they lack the habit
Of burying their emotions.

◆◆◆◆◆◆

The intensity of our suspicions
Is the measure of our honesty.

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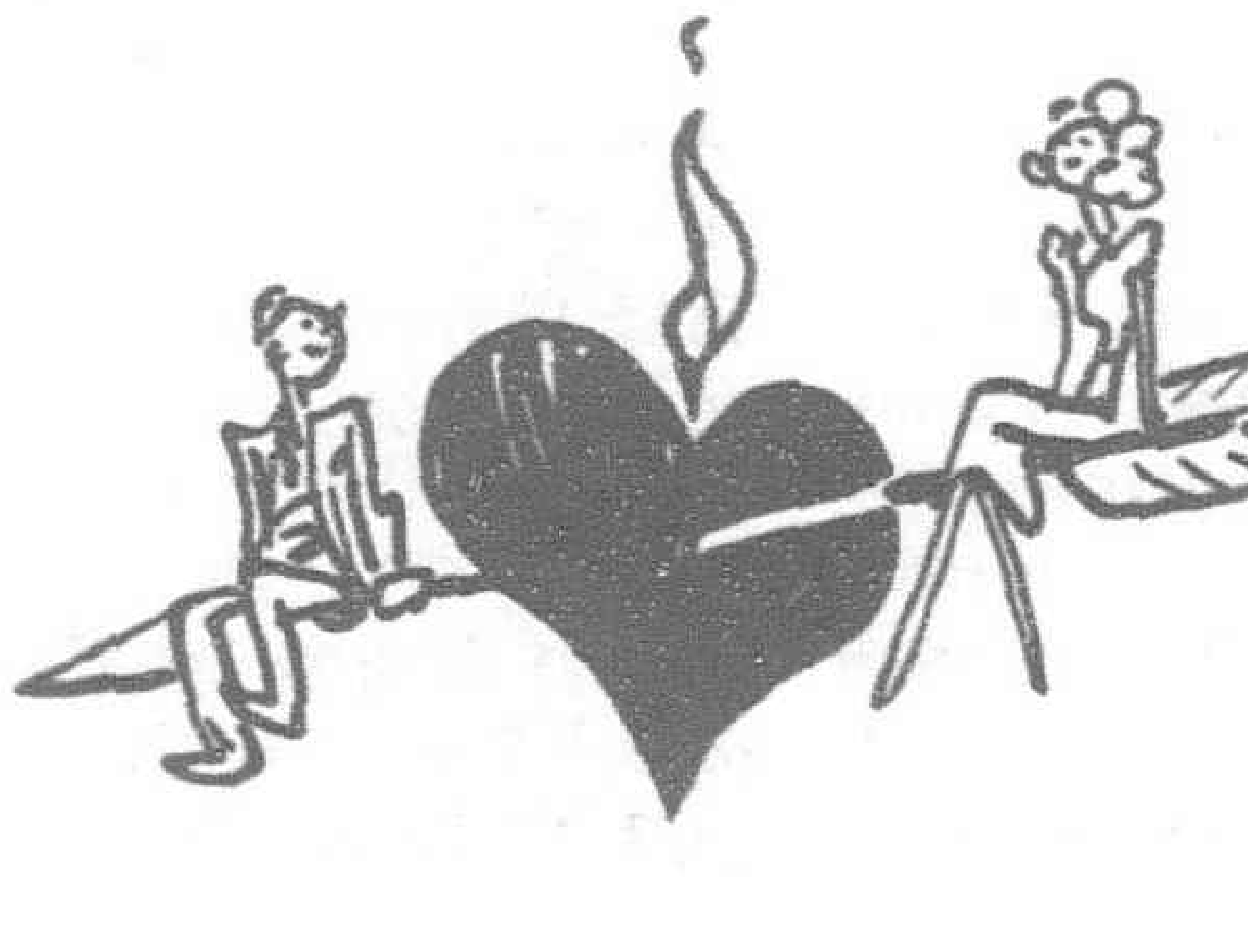
Those reared with excessive paternalism
Look for assistance
Instead of scratching for themselves.

◆◆◆◆◆◆

The pessimist attributes
The success of an optimist
To LUCK



The pessimist lives in terror
Lest he be taken for an optimist.

◆◆◆◆◆◆

The pessimist thinks he is shrewd
Because he can say "no" to everything.

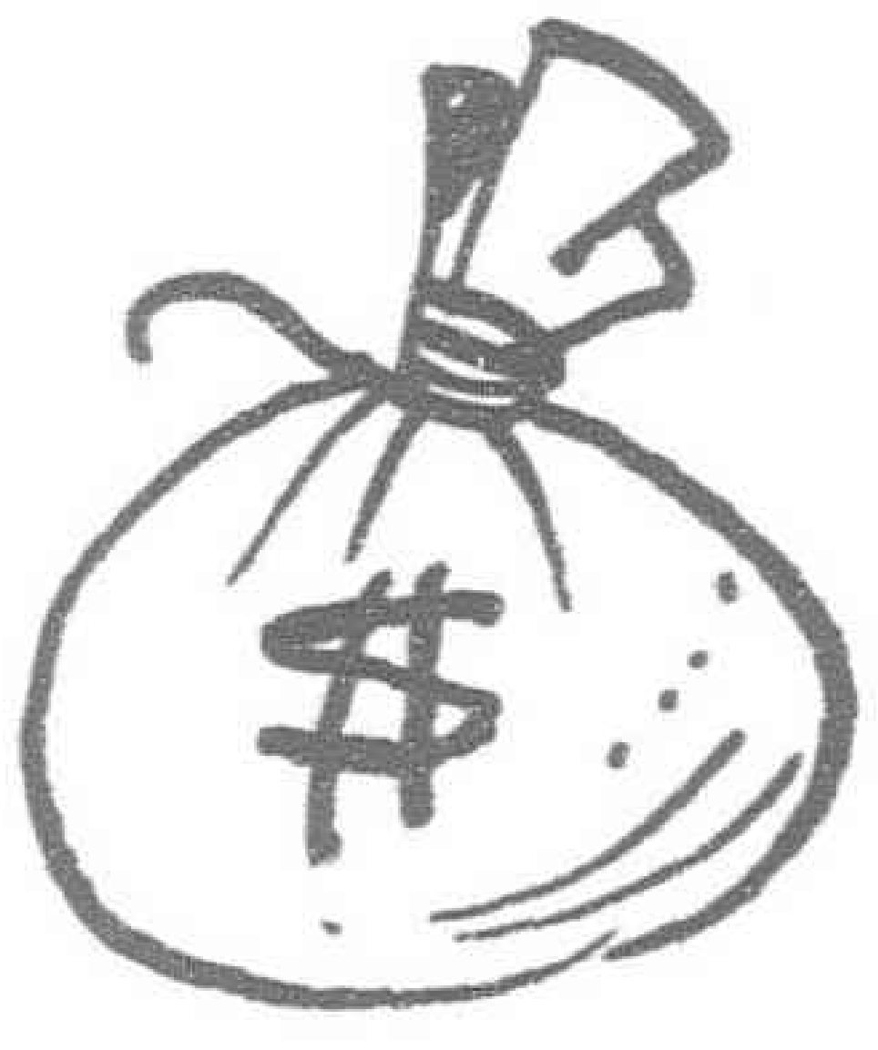
◆◆◆◆◆◆

The pessimist thinks a cheerful person
Is a damphool.

◆◆◆◆◆◆

Successful men like to brag
Of their lack of interest
In money as money—
Perhaps it is this low valuation
On money which makes them
Continue to heap more upon more
After their normal needs have been filled.

◆◆◆◆◆◆



Before men make a fortune
They dream of acquiring a country home—
When the money comes they buy a town house.

◆◆◆◆◆◆

Luxurious habits enter
When we say adieu to Want.

◆◆◆◆◆◆

'Tis a small man whose horizon
Will not widen
With an increase of wealth.

◆◆◆◆◆◆

The comfort of a fixed income
Enslaves men to-day
As did serfdom of old—
It takes a brave heart
To strike out as a free lance.

◆◆◆◆◆◆

Somnolent genius is in most
But sleep will never express it to the world ;
Like gold in the mountain
It requires prospecting,
Digging, refining and marketing.

◆◆◆◆◆◆

The peace which comes to the soul
Through recognition of the futility
Of happiness based on baubles—
Is the one great compensation
Of calamity.

◆◆◆◆◆◆

If we crack the nuts
The squirrel dies of mange.

Japan and the European War

By C. J. LAVAL

DIFFERENCES of public opinion in the United States and in Japan regarding the war in Europe have been growing more clearly marked as the great struggle progresses. It is a significant circumstance that the most outspoken elements in American public life are voicing views about the conflict that are at variance with the attitude of the Japanese mass mind concerning the fortunes of the war. From the time when President Roosevelt gave the pledge that the United States would extend its material resources to the Allies the American Nation, without declaring war, definitely entered into alliance with the Democracies that are fighting for their existence in Europe. Concerning the progress of the war it is noteworthy that Japanese leaders in general have been observing a discreet reticence while the Tokyo Government clings to its policy of non-involvement, a policy that leaves the Japanese Government free to swing in any direction that unfolding events may dictate.

Thus, a space of ninety days, in consequence of events on the other side of the world, Japan has taken a new place in world affairs. And thus, it may be added, has the conciliatory course of British diplomacy in the Far East through this period been justified—continuing the contrast with American procedure and position. In all of its dealings with Japan regarding the China war, the formation of the new Nanking Government, and other matters, the British Government has held consistently to all tenets of its announced Far Eastern policy, and it has yielded nothing of importance, but it has contrived to leave the Japanese in an amiable frame of mind. These intangible values may have an immense bearing upon future events.

What course Japan may take in connection with or in consequence of the war in Europe must measure into a matter of great importance to the rest of the world. No clear indications have yet been given as to what Nippon's future line of action will be. In the published expressions of leaders are to be found no outspoken notes of sympathy with the Allies, but, on the other hand, no important voices have been raised in approbation of the German successes. Perhaps no other national press in the world has been reporting the war on so even a keel of impartial neutrality as have the newspapers of Japan. Their news columns chronicle the progress of the European conflict from the dispatches as they come from the headquarters of the adversaries and what comment is made editorially analysing advances and retreats is detached and academic.

Opposing Japanese Viewpoints

It seems to be apparent that the major trend of thought in the Japanese public mind, without specially sympathizing with the Allies, still believes in their ultimate victory despite all the impressive successes of the German armies. Opposed to this section of public opinion is a much more outspoken minority, including in its membership figures of consequence, that believes Germany must win the war.

This minority group, which has been emerging swiftly from the eclipse into which it was cast by the conclusion of the treaty between the Reich and Soviet Russia, has been strengthened immeasurably by the spectacular German victories. These elements believe, perhaps too truly, that American assistance for the Allies will come too late to be of avail; they foresee that increasing preoccupations of the United States in the European conflict, and self-interest in the States, will impose restraints on American action in the Pacific that otherwise might be taken. What appears to be advocated by this political faction is some newly oriented axis agreement in which Japan would be kept clear of entanglements in Europe or in European waters, but in which Nipponese influence would take a positive direction in favor of Germany and Italy. It is within range of possibility, too, that in producing such a development precedents of recent years would be thrown to the winds, and that Soviet Russia would find a place in the new alignment. The recently concluded treaty between Japan and the Soviets adjusting the Manchurian border may be a straw showing the way the wind blows. And the flirtations of Berlin and Rome with Tokyo in the form of polite and amicable exchanges of one kind or another cannot be dismissed as having no meaning.

The same elements in Japanese political life that held aloof in silence and so defeated the original axis aims of Lieutenant-General Hiroshi Oshima, when he was Ambassador at Berlin, and Mr. Toshio Shiratori, when he was Ambassador at Rome, again appear to be opposing the aims of the minority pro-axis group. That they "appear" to be opposing should be emphasized, for, as on the former occasion, these more conservative elements eloquently are saying nothing.

For a period of years beginning from the winter of 1931 Japan grew more and more out of favor with the powers of the Occidental world. Although a distinguished Briton headed the League of Nations Commission of Enquiry, which brought against Japan the indictment from which has flown so many consequences, it is to be seen now that through this period the British and French Governments held back from positive measures adverse to Nippon. To the plaudits of all those many Americans who cling to the delusion that China is a dependency of the United States, the American State Department assumed leadership of what grew to be a worldwide movement opposed the Japanese actions in East Asia.

Action is Resented

Correctly or not, Japan regarded as a punitive measure and as an expression of American ill-will the abrogation last January of the Japanese-American Commercial treaty of 1911. The terms of this treaty gave Japan six months in which to prepare to meet the anticipated blow in the form of a general trade embargo. Nippon was not idle in this period, and the treaty at length was abrogated in January. Nothing more happened, that is, nothing more than that American and Japanese trade relations in the absence of any formal compact were placed on a week to week basis, an arrangement that was being continued until recently. The departure came early in June when an American embargo was placed on the export of machine tools, but it appears this applies to all powers in common and is not specifically aimed against Japan.

Whether the European war will be brought into the Pacific appears to-day to depend on the fate of the present Cabinet of Admiral Mitsumasa Yonai. Premier Yonai was Minister for the Navy in the Hiranuma Cabinet and then was a major active force in blocking the plan to bring about a military alliance between Japan, Germany and Italy. The Premier's attitude, it is known, leans toward a policy of closer co-operation with the United States and Great Britain, and in this attitude he is supported by important commercial and political interests. Events in China and the success of the newly organized Nanking Government under Wang Ching-wei may determine the survival of the Yonai Cabinet. The preceding Cabinet under Premier General Nobuyuki Abe fell because it failed to achieve a satisfactory solution of the situation in China. The same fate and for the same cause may overtake that Yonai Cabinet unless it should succeed in winning advantages desired by leading Japanese interests from another quarter.

Events in China at best can move but slowly. For one cause or another resources from tremendous efforts and huge expenditures in North China have fallen far short of Japanese expectations, and it is foreseen that exploitation of that part of China must be a long drawn-out process. Since the Yonai Cabinet went into power on January 16 its outstanding achievement in China has been the formation of the new Wang Ching-wei Government, but this Government must be hampered and under restraint as long as warfare continues in China and until it wins some measure of recognition and outspoken popular support. Recent new thrusts up the Yangtze of the Japanese armed forces and extended aerial activities may in time reduce Chungking to an ash heap, but it is thought that this will only cause the removal of the Chiang Kai-shek Government into a new remote locality where it may continue to function.

Chances for Peace

It is known that behind the scenes in China negotiations are going forward that hold the hope that warfare between Japanese and Chinese forces at length may be brought to an end. This grows out of an open split in Chungking's ranks between the outright Communist elements and those in the Chiang Kai-shek Government who have come to a realization that China has been fighting a destructive war for Russia, and who desire to throw off the yoke of Russian influence. In this situation lies the possibility that some adjustment of relations between the two existing Chinese régimes, at Chungking, and at Nanking, may be brought about.

Elements in the Japanese political scene that distrust commitments with Germany and Italy and oppose the growing pro-Axis trends, have been heartened and strengthened by recent new tendencies in the United States, brought into being by the German successes in Europe. For the first time in many months several prominent American political leaders and a number of American newspapers have referred to Japan in terms that are not condemnatory. This shift of American viewpoint does not grow out of any new-born friendship for Japan; it rests upon the realization that a new sinister factor has been obtruded into the Pacific situation, and that Japan may not be content meekly to remain in that isolation into which many Japanese believe the American Government has sought to place her. American realists always have taken account of the circumstance that Japan stands in third place among the world's great naval powers, and in earlier years experts have expressed a doubt if the combined American and British fleets would be powerful enough to overwhelm the Japanese Navy in its own waters. It has always been admitted by the cognoscenti, therefore, that the winning of a war with Japan by the United States would be nothing like a naval holiday. This was impressed upon Mr. Henry L. Stimson by American naval authorities, when he was Secretary of State under President Hoover, and when he was striving to shape affairs so that the United States should punish Japan for her incursion into Manchuria.

The situation of the present day finds Japan in an entirely new position. Assuredly Nippon has been weakened and her resources have been depleted by nearly three years of inconclusive warfare in China. Through all this warfare it must be remembered, however, that Japan's naval strength has remained virtually unimpaired. It is highly probable that it has been immensely strengthened. No exact information on this subject has been made available and tentative proposals for an exchange of information regarding naval building that have been put forward from time to time by American naval spokesmen have met with no responses. In a recent utterance the Spokesman for the Japanese Navy, Rear-Admiral Masao Kanazawa, commenting on the belief that the presence of the American fleet in the Pacific exerted restraint upon Japan said bluntly, "The Japanese Navy is conscious of no pressure in consequence of the presence of the American fleet in the Pacific."

A Situation Fraught with Danger

The exceedingly realistic thought that has inspired American political leaders and American publicists in recent times to counsel a course of moderation toward Japan, and to advise that the Government should take steps to adjust relations with the Nipponese is based soundly on possibilities that may swiftly become probabilities, then actualities. It is clear to all observers that the United States daily is coming more and more close to actual involvement in the European war and the indications are not lacking that the Administration has taken a course to prepare the public mind for American entry into the war. Who can say that Hitler may not declare war against the United States? Such eventualities work two ways. As world events are drifting it can easily come about that the United States may find itself confronted by the dread reality of war both in the Atlantic and in the Pacific.

It has been said that domestic politics entered in some measure into the abrogation of the Japanese-American Trade Treaty at Washington last July. The hazards of taking a slap at Japan at that time were not specially formidable. It was in keeping with the fashion of the time, too, for American public opinion largely had been brought by astute special interests to look upon Japan as the deep-dyed villian in the international melodrama, and public opinion was swayed into righteous wrath by such things as "full rice bowls for China" fiestas that were staged so successfully in California—under direction of West Coast American Communist elements to their own profit.

The times have changed. The international implications of the present-day situation in the Pacific far outweigh in importance any domestic American issue. The question of winning or losing a war in this part of the world is not pertinent. The issue that the Washington Administration presently must decide is. Does the American Nation want to fight a war for Soviet Russia?

Japan's Message to America

By ADMIRAL KICHISABURO NOMURA, Former Japanese Foreign Minister

(The Osaka Mainichi)

To a life-long friend of America, the present state of affairs between our two countries is anything but satisfactory. Is rapprochement possible? From our standpoint there can be only one answer—Yes. The American answer is for America to say, but no Japanese can conceive any American answer which precludes re-establishment of normal intercourse.

On this point Ambassador Grew and I were of one mind when we were striving to arrive at an agreement.

We have stated time and again that American rights and interests in China will be respected, as is explained below.

What is needed is time and patience. We must have reasonable time in which to work out different problems which concern both China and Japan. I do not think Japan is unreasonable in asking America to give us the necessary time.

Japan and China are evolving a program of mutual co-operation which in scope and magnitude is unprecedented in their history and which is deeply rooted in the mutual instinct of self-preservation of the two countries.

The new China will be independent both in name and reality. As for North China, its autonomy is simply the legalization of the condition which had long existed before the hostilities.

For Inner Mongolia, contiguous to Soviet-dominated Outer Mongolia, certain defensive military measures against Communist incursions will be arranged jointly by China and Japan. The reason need not be explained here. It is self-evident to all who follow the news which comes to the American and European press from the Near East, from India, from European capitals, from the deep interior of Central Asia.

We must take the situation in hand before it is too late. A communized China is a blow to the world's civilization and raises a question of life or death to the countries immediately affected.

The defense needs of Japan, China, and Manchoukuo have a close relationship to the joint economic system which they contemplate. However contrary to free trade ideals this projected system may seem to be, the fact is glaring that all nations, including those professing democracy and liberalism, are tending toward economic nationalism—Ottawas, quotas, tariff walls, blocs, etc.

Of course no nation can be literally self-supporting, but in a world like this, no nation can afford to ignore the economic nationalism practised by others.

The very fact that so great and rich a country as the United States has adopted a neutrality law with its quasi-embargoes and trade restrictions shows that other nations, whose individual natural resources are limited, must unite and pool their economic strength to prepare themselves against any emergency which may arise.

We are not living in Utopia. We live in a hard world where war and strife still remain potentialities which must be taken into account in the formulation of our national policies.

I am reluctant to believe that America is opposed to the proposed economic system in the abstract. No nation has a right to frustrate the determination of policy which another nation considers a matter of life and death.

On the other hand, if what America is concerned with is not the new economic system itself, but the preservation of her rights and interests within the system, then we have repeatedly stated that we will talk matters over with her in an accommodating spirit.

As the bloc theory is put in practise, there will arise problems affecting American interests. Such problems we will take up in a practical, businesslike manner, always with a view to arriving at an amicable adjustment. We do think this a reasonable proposition. We do think other nations unreasonable which deny us our obvious right to put this theory into practise without even waiting to see how the practise will affect their legitimate rights.

Americans point to Manchoukuo as an example of the " closed door " under Japanese influence. This criticism is wide of the mark. It shows how judgment is warped by prejudice. Take any statistics, American, Japanese, or Manchoukuoan, and they all show that American trade with Manchoukuo has increased and this in spite of all the unpleasant things America has been saying about Japan.

Much ado has been made about the oil monopoly adopted by Manchoukuo.

The powers which protested against Manchoukuo's new oil program abused their great power which they knew they enjoyed as the monopolistic owners of the world's oil resources. In the end, however, even these powers will discover that Manchoukuo's new system is beneficial to them, increasing as it does her consumption of crude oil which she imports from those powers.

I do not think America is interested in the open door in the abstract. She is interested in it as a means to the end of preserving and promoting American trade and enterprise. If so, the thing America should do is not to hurl names at Manchoukuo and complain about the imaginary closed door. Instead she should come forth with constructive proposals to promote her interests. There is no trade anywhere for any trader who does not go after trade.

Look at what Germany has done. While America was treating Manchoukuo as if she were an outcast, Germany recognized her and came forth with a practical plan to sell her steel and locomotives and machinery and what not.

China, as I have pointed out, is not going to be a second Manchoukuo. Third powers interested in trade may perhaps find a more plausible parallel between the economic field in the new China which is coming into existence and the economic field in Manchuria in the years following the Russo-Japanese war of 1905.

In the wake of that war, the world heard much about Manchuria's economic door being closed by Japan to other nations.

Yet in spite of all America did or said against Japan in Manchuria, including a scheme to put the Japanese railway there out of business, she did a roaring trade with the Japanese in Manchuria. True, small American business such as was represented by American cotton piece-goods was gradually superseded by Japanese goods. But that was insignificant in dollars and cents.

Immensely bigger new American business was created by the Japanese in the shape of steel, engines, locomotives, rails, mining machinery, all imported from America in great quantities.

As is usually the case, the small losers made a great deal of noise, complaining about their loss of business, but the big gainers, contented and making big profits, kept quiet. The result was that, in the average American mind, Japan was pictured as the closer of the Manchurian door, though as a matter of fact Japan left the door wide open.

Obviously Japan could not, much as she wished, let America monopolize the Manchurian market. If Japan were to pay great sums to America for heavy goods, she herself had to have a " break " by selling Manchuria cotton and other piece-goods. That was only fair, and it was unfair for America to complain about it.

There is not the slightest doubt that what Manchuria did for American business in the roaring years of the 1910's and '20's China will do in the years ahead—provided American business will steer clear of open door politics.

American business in the Orient will fare much better if it avoids getting mixed up with politics. If American business takes care of itself, so will the door.

Some 12 years ago, a certain American financial house was ready to finance a certain economic project contemplated by the Japanese railway in Manchuria. But politics got mixed up with the plan on the American side and it was nipped in the bud.

Even at this disturbed time a certain American industrialist is willing to launch a big enterprise in Manchuria jointly with the Japanese and Manchoukuoans. Again American politics has proved a stumbling block.

I recall that in 1922 the American Government sponsored a so-called international financial consortium which was really aimed at Japan in Manchuria—a resuscitation of the internationalization of Manchuria proposed by Secretary Knox in 1909.

When the consortium idea was put before an American financial group, one firm, speaking on behalf of the group, disapproved the idea of using loans to China as a tool of diplomacy and politics, although the group agreed, willingly, to go along with the Government in as much as the scheme was put up to it.

It is just as well for us to face facts squarely and admit that the present estrangement between Japan and America is not of sudden growth, but a result of accumulated misunderstandings extending over 35 years. I cannot bring myself to believe that Japan alone is responsible for this. Much as I wish to believe otherwise, America is not entirely blameless.

We are grateful to America for the guidance and help she gave us when we were young—grateful for the encouragement given us in our titanic struggle with Czarist militarism—grateful for America's sympathetic attitude toward our aspiration for the abolition of extraterritoriality—grateful for the generous aid to the earthquake sufferers in 1923.

We on our part voluntarily stopped our immigration to America —acquiesced in anti-Japanese legislation on the Pacific coast—made every possible concession at the Washington Conference.

At the same time we regret, and deeply, certain American acts which seemed to us unjust or uncalled for. We had assumed that the Monroe Doctrine implied the golden rule. We had assumed that the United States, excluding alien political influence from the Americas, would by the same token refrain from doing in our part of the world what she forbade others from doing in hers.

Yet history records that America tried to scuttle our Manchurian position won at heroic sacrifices—that she tried at various times to secure a naval base close to our territory—that she took it upon herself on more than one occasion to force our retreat from the continent.

On top of all this came the immigration act of 1924 with its Japanese exclusion clause—this in disregard of our repeated assurance to America that we would enter into a voluntary agreement which would accomplish the same result as a statutory exclusion.

America seems to be interested in the balance of power in Asia. President Theodore Roosevelt did not want Japan to win a smashing victory over Czarist militarism, because that would destroy the balance. President Taft was apprehensive lest Japan's preponderance in the Far East jeopardize Philippine independence. President Wilson felt American participation in the Allied Siberian expedition necessary to watch Japan and keep her from becoming too powerful in Siberia, even by having the American forces take control of the railway in North Manchuria.

When in 1933 America recognized Russia, the American press almost unanimously reported that this step was taken to check Japan and preserve the balance by throwing American influence on the Russian side of the scale.

The balance-of-power theory is of British origin.

We understand England's traditional policy of maintaining the balance on the European continent because that continent lies at her very door. It is difficult to understand why America should be so interested in the balance of power on the Asiatic continent which is thousands of miles away from her Pacific coast, and where Japan's rising influence by no means affects American interests.

Such is history. It is cited here to show that there are two sides to every problem—to show why at one time or another the Japanese had the uneasy feeling that America was seeking to check Japan. I believe this feeling to be exaggerated or groundless, but the historical facts which created it cannot be ignored.

On our part, there is every desire to avoid conflict with America. To that end we will do all in our power. But I owe it to candor to say definitely that there are certain things which we, for all the friendly feeling we cherish for America, cannot do.

If America's intention is to force us to retrace our steps on the continent, and to abandon the politico-economic co-operative union which Japan, China, and Manchoukuo are organizing in self-defense and for self-preservation—then our answer cannot but be a polite non possumus. On this point the nation is united.

If, on the contrary, America's desire is to preserve and promote American rights and interests within the framework of the new system, then there is every reason to believe that, given reasonable time, harmonious adjustment will be found.

Effects of the War in Europe

Far-flung effects of the spread of the war in Europe are being felt more and more acutely in every part of the world. Some measure of the vast extent of losses that are being sustained is to be gathered from an analysis compiled by financial experts of the National City Bank of New York. This is given in part in the following:

* * *

The spread of the war into Scandinavia is another blow to international trade, paralyzing in its effects upon the peaceful and prosperous countries now invaded, and with consequences extending over the world. As trading nations the Scandinavian countries are much more important than their small populations (17,000,000 for Denmark, Norway, Sweden and Finland combined) would indicate. Their foreign trade in 1938 aggregated $2,500,000,000, a per capita average of $150 compared with only $37 for the United States. Their natural resources are small, with some exceptions, but they have abundance of a few commodities, and supply a large percentage of the world's exportable surpluses of wood pulp and paper, bacon, butter and eggs. They have one-fourth of Europe's coniferous forest area, and normally ship more than one-fourth of world exports of saw-mill products, nearly three-fourths of chemical pulp exports, and one-half of paper exports. Thus their supplies are vital to other countries, and their own high standards of living rest upon a base of imports, exports and shipping.

With Denmark under German control and blockaded, Norway turned into a battleground, and Sweden and Finland bottled in, Scandinavian commerce outside the German area is cut off almost entirely; and only decisive Allied victories can restore it. Meanwhile the shifts and disruptions in other established trade channels are certain to be widespread. All shifts of trade are depressing in some quarters and stimulating in others, and the effects of the changes now occurring can be foreseen only in part. As a whole, however, they will be costly, either in the short or long run. While the battles go on exporters to the Scandinavian States are without their markets, imports which formerly came from those States, where obtainable elsewhere, are more expensive, and the interruption of shipping is aggravated. All these are costly offsets to the gains of shippers or domestic industries who receive business diverted from Scandinavia, and to any increased demands for munitions and supplies that may reach this country.

U.S. Trade with Scandinavia

The Scandinavian countries are valued customers of the United States. Historically they have bought from us more than they sold to us, covering the difference by shipping and tourist receipts, and by transfers from London out of the proceeds of their excess of exports to Great Britain. Our exports to the four countries in the twelve months before the war were about equal to exports to Germany, and since the war began they have expanded sharply, in part making up our loss of German trade. From September to February inclusive they aggregated $115,000,000. Our imports from the same countries were $51,000,000.

At this rate an export trade exceeding $200,000,000 annually, or about five per cent of our total exports, and an import trade almost half as large, are at stake. The automobile and allied industries will feel the loss most seriously; the majority of cars sold in Scandinavia are of American make, and American assembly plants are located in Denmark and Sweden. Some 20 per cent of our exports have been motor vehicles, and another 15 per cent gasoline and other petroleum products. Other important shipments include machinery and raw cotton, and since the rearmament race started the United States has furnished an unusual proportion of the steel, particularly wire, imported by these countries.

Among United States purchases from Scandinavia wood pulp and paper predominate, constituting 80 to 90 per cent of our imports from Sweden and Finland and one-fourth of our imports from Norway, which also ships us fish products and fertilizers. Imports from Denmark are small and chiefly agricultural specialties.

The Wood Pulp Situation

United States imports of wood pulp normally total around one-fifth of domestic consumption, and about 70 per cent of the imports come from Scandinavia, chiefly unbleached sulphite and unbleached sulphate. In 1939 one-half of the United States consumption of unbleached sulphite, which totalled 1,360,000 tons, was supplied by imports. Of the 3,000,000 tons of unbleached sulphate used, over one-sixth was imported.

According to the 1939 report of the United States Pulp Producers Association, domestic capacity for pulp production (all kinds combined) is adequate for domestic consumption. However, unbleached sulphite capacity, considered separately, falls about 20 per cent short of domestic needs. In any case suspension of imports from Scandinavia will lead to increased demands upon U.S. and Canadian mills and pulpwood supplies, not only from domestic requirements but possibly from other countries which have relied upon Scandinavian pulp and paper. The pulp market has strengthened accordingly. While quotations are largely nominal, foreign unbleached suphite is quoted $65 to $75, against $55 to $60 before the invasion, and other pulps are up in proportion. Domestic pulp is sold on quarterly contract prices, the open market is small, and readjustments therefore take place slowly. There may be reason to be thankful for the construction of pulp mills in the South during the past few years. Since 1936 approximately 3,000,000 tons of new capacity, largely for making sulphate pulp used in kraft papers, have been installed in the country.

The supply of pulp for rayon manufacture is not directly affected by the European developments. None of this high grade pulp is imported from Scandinavia. In 1939 we imported 88,000 tons from Canada and exported 48,000 tons. Domestic consumption was 200,000. Calculated domestic capacity is 336,000 tons, and although rayon output broke all records this branch of the pulp industry operated at less than 50 per cent of capacity.

Only a small fraction of our imports of newsprint come from Europe, and within the past month the Canadian contract price of $50 has been extended unchanged for the third quarter.

Britain Loses Sources of Supply

Upon British trade particularly, the repercussions of the spread of war will be more serious than upon the United States. Great Britain covered nearly 90 per cent of her pulp requirements, and about 44 per cent in value of her paper imports, from the Scandinavian countries. Earlier in the war she had lost minor sources of supply, when Poland and the Eastern Baltic States became inaccessible. She has turned chiefly to Canada and Newfoundland to make good some of the losses, and has taken steps to restrict both timber and paper consumption and to develop substitute materials.

Equally important to Great Britain have been the pork and dairy products imported from Scandinavia, chiefly Denmark. The agriculture of Denmark is, in effect, a factory system, scientific and largely co-operative, which converts imported feedstuffs—Argentine corn, Brazilian cotton-seed cake, Danubian sunflower seed cake—into high quality pork and dairy products for export. The basic dairy product, milk, is processed into butter; the by-product, skimmed milk, is fed to pigs to produce high quality bacon. Denmark alone shipped nearly one-half of the world's export of bacon in 1937, and together with other Scandinavian countries about 26 per cent of world butter exports and about one-half of fresh egg shipments.

Great Britain purchased a large share of her requirements in these countries—in 1938 53 per cent of her bacon imports, over 30 per cent of her butter and nearly 40 per cent of her egg imports. Thus she will have to ration consumers more closely, or turn to other markets. American business is concerned to know whether she will buy in the United States, particularly pork products, prices of which are on an export basis.

Doubtless the British will confine their bacon purchases as far as possible to Canada, conserving their dollar exchange to pay for munitions. However, demands in time may overflow into the United States. For the present no increase in British buying is expected. The Food Ministry has announced that heavy pork stocks now on hand must be reduced before hot weather, British and Irish bacon production is larger than counted on, and consumption is expected to be reduced. Whatever the outcome, there will be no change for the present in the quota limitation which Canada placed on February 26, on her imports of pork from the

United States. This quota is 1,626,769 pounds monthly, equal to the average of the first nine months of 1939, but only one-sixth of the January total.

American butter cannot be sold in Great Britain unless the British Government should decide to pay an import subsidy, for the American price, which is supported by U.S. Government purchases, is substantially above an export basis and approximately equal to the fixed price in Great Britain. Thus there is no margin to cover shipping costs and the British duty of about $2\frac{5}{8}$ cents on non-Empire butter. Where Britain will replace her Danish butter supplies remains to be seen. Doubtless consumption will be reduced and use of margarine and cheaper cooking fats increased, which may raise her requirements for other oils.

Further Disruption of Shipping

At best, the spread of the war will necessitate longer hauls for about 10 per cent of British imports. The confusion about the legal status of the Norwegian and Danish merchant fleets, which immediately disrupted their service on international trade routes, is still but partly cleared up. The Danish fleet, which consisted of some 700 vessels (100 tons or more) of 1,175,000 gross tonnage at the beginning of 1939, is now off the high seas, considered a "technical enemy" by the Allies unless transferred to the Allied flag. The Norwegian fleet, which early in 1939 numbered 1,987 ships totaling 4,833,000 gross tons, has been placed at the disposal of the Allies, who have restricted its movements considerably. Late in the month, however, the restrictions were eased somewhat permitting Norwegian ships to return to the Cuban and Chilean trades. The Swedish merchant fleet has been ordered out of the war zone.

According to the United States Maritime Commission, 47 Danish and Norwegian vessels have been operating regularly on routes between this country, South America and the Far East. At present there are not enough American vessels available to take their place, although 117 vessels owned by the Maritime Commission are still laid up. Most of these ships are more than twenty years old; under the present law, it will require Congressional consent to permit their being chartered, and a joint resolution to that effect is now pending.

As the war proceeds the strain on shipping facilities tightens. Tonnage on many routes has been reduced by the diversion of British ships to war services, withdrawal of American ships from combat areas, and the laying up of the German merchant fleet. Moreover, the convoy system is said to have diminished the efficiency of the British merchant marine by half. War losses themselves have been relatively small, amounting to about 2.5 per cent of world shipping, and have been partly offset by the construction of new ships, which in Great Britain is approaching a mass production basis.

The decrease in shipping space has been reflected in the rise of freight rates, which since the beginning of the war have advanced 100 to 500 per cent, in some cases, on routes to the war zone. As a whole, however, the ocean freight rate structure is far below the World War levels. It is estimated that the rates of conference carriers represent only about 15 per cent of the peak then reached, while charter rates have fluctuated up to about one-half of the 1914-18 top.

As a group the Scandinavian countries owned early in 1939 roughly 8,000,000 gross tons of shipping, or about 12 per cent of the world fleet. A distinctive feature of their shipping was the large number of vessels designed for special trades. Of the total Norwegian tonnage in 1937, for example, tankers represented 43 per cent. Other specialties were the Norwegian and Danish fruit carriers and the Norwegian whaling fleet. The net earnings of these fleets, which amounted to about $220,000,000 in 1937, have been a major factor in the balances of payments of the Scandinavian countries. Together with tourist income, which brought in a net of about $30,000,000 in the same year, they have served to pay for the excess of imports and for debt service.

Striking at the Source of Scandinavian Prosperity

To the Scandinavian countries themselves the spread of hostilities is a tragedy whose extent cannot yet be determined. The effects of war are nowhere so demoralizing, disrupting and utterly devastating as when they fall upon countries whose economic life is based to a high degree upon peaceful trade and exchange of services with other countries. Deprived of these exchanges, the high standard of living and stable prosperity which the Scandinavian countries have enjoyed up to the outbreak of war will be stricken at the source. The Danish agricultural system, based upon the import of foreign feedstuffs, and their manufacture through the livestock industries into high quality products for export, seems likely to be gravely disrupted; and to the extent that the supply of feed is reduced liquidation of livestock, the basic productive asset of the country, is threatened. To what extent the Norwegian fishing fleet and canneries will be handicapped remains to be seen. Operations of the mines and wood-manufacturing industries, less dependent on foreign materials, will be less hampered, but the question is of markets, as long as ports are closed and transportation disrupted.

The situation may change, but as it stands Germany now has control of greater food supplies in Denmark and access to a greater share of whatever exportable surpluses the other countries may produce under war conditions. But what she can give in return, and whether the present high productivity of Scandinavian agriculture and industries can be maintained, without access to international markets, are other questions; and unfortunately the answer must be expected to be unfavorable in its implications for the Scandinavian economy.

The War and the Foreign Exchanges

The spread of the war to Scandinavian countries has introduced new problems and complexities into the foreign exchange situation.

On April 9, immediately following the invasion of Denmark and Norway, banks in the United States and in other leading exchange centers suspended dealings in Danish and Norwegian currencies save in cases of definitely ascertained legitimate needs of customers. On the next day President Roosevelt, by executive decree, ordered the "freezing" of all Danish and Norwegian balances in this country, prohibiting all transfers from these accounts except as specifically approved by the United States Treasury. Later this order was interpreted as applying to securities as well as to other assets. In making this move, the Government evidently was prompted by a desire to protect banks and other fiduciary institutions against legal risks where authority to make transfers might be in doubt, and also by a wish to safeguard Danish and Norwegian holdings against falling into unauthorized hands.

Trading in Swedish exchange was greatly curtailed owing both to lack of demand and to the policy of the Swedish authorities of controlling capital exports. The krona dropped nearly half a cent to a new low of 23.40 cents, later recovering most of this loss.

Scandinavian Gold Reserves and Other Funds

With the extension of German control over Denmark and parts of Norway, interest has been aroused as to the status of the gold reserves of those countries and of Sweden. The following table gives latest available figures on gold and foreign exchange holdings of the central banks of the three countries, together with comparative figures at the end of 1938, and by months since the outbreak of war last September.

GOLD AND FOREIGN EXCHANGE HOLDINGS OF SCANDINAVIAN COUNTRIES

(All Figures in Millions of Dollars)

Date	*Sweden*		*Norway*		*Denmark*		*Total*	
	Gold	*Fgn. Exch.*	*Gold*	*Fgn. Exch.*	*Gold*	*Fgn. Exch.*	*Gold*	*Fgn. Exch.*
Dec. 1938	321	181	94	24	53	23	468	228
Aug. 1939	355	132	107	30	53	2	515	164
Sept. ,,	357	113	107	18	53	2	517	133
Oct.* ,,	332	100	103	18	53	2	488	120
Nov. ,,	333	92	103	21	53	2	489	115
Dec. ,,	308	72	94	22	53	2	455	96
Jan. 1940	258	97	84	23	53	2	395	122
Feb. ,,	218	115	84	20	53	2	355	137
Mar. ,,	173	134	84	20	53	2	310	156

Note.—Foreign exchange holdings converted at prevailing rates of exchange.

The fourth Scandinavian country, Finland, held about $64,000,000 of gold and foreign exchange in its central bank prior to the Russian invasion, but since then publication of figures has been discontinued.

It will be seen that the three countries had at the end of March combined holdings of $310,000,000 of gold, plus about $156,000,000 in foreign exchange assets. Compared with the end of 1938, gold

(Continued on page 208)

Changing Trade Conditions in the East

(The Imperial Review)

THE East is very much in the news in these days and manufacturers are apt to be so engrossed, or worried, with what is happening in Europe that they are apt to forget those enormous Eastern markets which, in the past, have proved so lucrative. In China, to quote only one example, millions of pounds worth of British capital has been invested. China is a most valuable market, and one likely to absorb enormous quantities of British goods—always provided, of course, that manufacturers are inclined to go out after the business.

Prior to the Great War of 1914-1918 Britain enjoyed a huge trade in the Far East. But during these tragic war years European competition was eliminated from Eastern markets. India and Japan were both belligerents from an early stage, but India's commitments were far more serious than those of Japan, and in consequence the effects of the war on the commerce of the two countries was different.

Despite high prices there was practically no increase in the value of India's foreign trade between 1914-1919, while the total volume fell far below the figures for the pre-war quinquennium. No doubt there was a boom in production for the home market and for munitions, but the results were not lasting. The cotton mills worked night and day earning huge profits which unfortunately were not ploughed back into the business, so that at the end of the war many concerns were left to face the day of reckoning which came two years later with obsolete machinery, limited capital, easy-going management and an entirely wrong idea of values. Nor were the new industries, so hastily organized to supply munitions, well adapted to stand the post-war strain. Japan on the other hand was able to make the fullest use of the opportunity afforded by the preoccupation of her principal trade rivals.

During the war years Japanese trade increased by 200 per cent. Old industries were strengthened; new industries were started. At first the quality of some of the Japanese products was most inferior. Japanese motor tyres would blow out before completing one hundred miles; Japanese pencils were found short of lead; Japanese matches shed burning particles on clothes and carpets; even Japanese beer was most unreliable.

These defects, which were later rectified, must not blind us to the benefits which cheap Japanese goods have brought to backward peoples hitherto debarred by poverty from many of the amenities of life. For instance, cheap Japanese rubber shoes have done much to eliminate hookworm from East Africa. So, too, cheap Japanese piece-goods have been a boon to the poorest of the poor. Examination of any picture of an Oriental crowd more than 100 years ago in comparison with a crowd of to-day reveals that the meagre loincloth has mainly been replaced by clothes. It is hardly surprising therefore that tariffs and quotas directed against Japanese goods have been far from popular in some British and Dutch colonies.

Meeting the Bill

China entered the war much later than India or Japan. But China was ever in a position to secure a substantial share of the export market, though some progress, as in India, was made towards the recapture of the home market for cotton goods. At least the number of mills doubled during the war, though mainly under Japanese control. Exports of cotton began to rise, and imports to fall, though there was a long way to go to make up for lost ground. Thus Japan, and Japan alone, improved her position during the war.

The nations of the world emerged from the war much poorer than before. For the first ten years after the war all behaved as if they were richer. The rubber boom is a good example of post war commerce, and the killing of the goose that laid the golden eggs. In the end the bill had to be met: the burden of debt became unbearable; obligations could not be honored; the price of primary produce fell below the cost of production. The whole system of international exchange was badly shaken, and though at one time recovery seemed in sight, the position steadily deteriorated with the slump and the adoption of totalitarian economics over an ever increasing area. As a result of a succession of crises it became necessary to impose tariffs and quotas, to limit production, to devalue currency, to repudiate debt and to take other extraordinary measures tending to a policy of self-sufficiency and the reduction of international trade.

Generally throughout Asia as elsewhere there was a severe contraction of trade between 1929-1936. Indian imports for instance fell by 50 per cent; imports into the Dutch East Indies by 60 per cent. But the outstanding feature of this period is that Japan, despite restrictions imposed by other nations, did much better than any of her competitors—especially after the devaluation of the Yen in 1931. Thus, while British imports into India fell by 50 per cent, Japanese imports remained more or less constant. While Dutch, British and German exports to the Netherland Indies fell by over 60 per cent—the reduction in the case of Japan was less than 20 per cent. While textile exports from the U.S.A. to the Philippines fell by 75 per cent, Japanese exports to the islands increased by 100 per cent. For the world as a whole there was a steady expansion of Japanese trade, especially with Latin America. No better illustration of the competitive strength of Japanese goods can be found than their unqualified success in those markets where the open door is maintained by international treaty, e.g., Morocco, the Congo basin, Tanganyika and Palestine, where Japanese products are quoted at prices which defy competition, bicycles under £1, typewriters £2 10s., one dozen silk stockings 7s. 6d., etc.

Policy of Self-sufficiency

The character of the trade, too, is changing. There is less dependence on the silk trade with America, once the sheet-anchor of Japanese commerce. Miscellaneous goods of all kinds now figure in the list of Japanese exports. Most important are the recent additions to Japanese textile exports—woollens and rayon. Japan, already the greatest exporter of cotton goods, now purchases a substantial share of the Australian wool crop, and has also become the principal rayon exporter of the world. In the circumstances it is hardly surprising that the nations of Europe and Asia have one by one been compelled to resort to tariffs and quotas to protect both their home and colonial markets—restrictions deeply resented by Japan and sometimes used as an apologia for the latest adventure in China. Despite her preoccupation with that adventure, the trade of Japan goes on with far less interruption than one would expect.

Elsewhere in Asia the reaction to the slump has been generally in the direction of a policy of self-sufficiency and further industrialization. Thus India has to some extent regained her home market in yarn piece-goods, iron and steel. By high tariffs she has re-established her sugar industry at the expense of the Dutch Indies, and her match industry at the expense of Japan.

On the other hand there are few signs of India becoming an exporter on a large scale of manufactured goods. Exports are still mainly confined to primary produce, minerals or semi-manufactured articles, raw cotton, jute, tea, tobacco, oil seeds, pig iron and manganese. Even in the home market India's industries only hold their own with the help of tariffs.

There is nothing more catching than a policy of self-sufficiency. Thus the Dutch Indies, deliberately and scientifically organized for the plantation system, have been driven in self defence to encourage manufacturing industries in Java, a striking example of the change that is coming over the East. It must not be forgotten that the Dutch have completely lost their sugar trade with India and Japan. The latter country now grows its own cane in Formosa.

Standard of Living

Of China it is difficult to speak at present. Her misfortune has been the inability of those who made the revolution to establish law and order. Her trade is chaotic and her future unknown. But one thing is certain. China cannot be counted out. It was once the idea that Japan should colonize Manchuria. Mass migration took place, but it was the Chinese, not the Japanese, who filled the empty spaces. China at least has this source of strength;

that the Chinese standard of living is lower than the Japanese, and setting all other considerations aside, the Chinese can underlive and undersell the Japanese, just as the Japanese can underlive and undersell the European. It is a grave mistake to conclude that Japan's standard of living implies degrading conditions. The standard is stark, simple and severe, but by no means devoid of æsthetic compensations. It is often suggested that the standard of living must rise in the East as was the case after industrialization in the West, and that the more acute problems of Japanese competition will thereby solve themselves. As a matter of fact in recent years real wages have actually fallen in Japan, nor can any substantial improvement in the standard of living in Asia be expected so long as millions are added to the population every year—four millions in India, one million in Japan, and millions elsewhere.

Again, it has been argued that if standards cannot be raised in Asia, the standard of living will have to be lowered in Europe. We shall certainly do all in our power to resist such a change, but even if we were compelled to tread this dreary road, there is no reduction of the standard of living within our reach which would enable us to compete with Japan in this respect, for it is physically impossible for European labor to maintain efficiency on Eastern standards of living. Italian labor costs are low enough, but in Morocco, Italian silk was soon driven from the market by Japanese competition.

It is now time to consider how far this record of the past affords us any guide as to the future. Two questions are often asked. First, will the policy of self-sufficiency, applied to Asiatic countries, result in a serious contraction of trade with the West ? and again, will Japan dominate the export trade, not only of Asia but in the world's markets generally ?

Necessary Commodities

To deal with these two questions in turn. When self-sufficiency is practicable, as for instance in the case of textile manufacturers in India, no doubt one must expect the home product to replace the foreign article. But there are compensations in other directions. Absolute self-sufficiency is impossible for any country, and under modern conditions there will always be a large range of commodities which must be obtained from abroad. The wants of even primitive people have multiplied out of all knowledge : with more advanced communities new wants are constantly making themselves felt as luxuries become necessities. One need only instance the trade in motor vehicles as an example of a vast demand that has come into being within recent memory. Thus there is neither reason to apprehend the extinction of trade between West and East, nor the reversion to the old type of commerce—bullion in exchange for spices.

As to Japan, this is a difficult time to attempt any forecast : a few months ago it was very doubtful whether Japan could maintain her position under the weight of her commitments in China. Now with the world at war, it would seem that Japan is again to be offered the opportunity which she so successfully exploited in 1914-1918. Her trade rivals will have their hands full for some time to come, for even those who are not actively engaged are mobilized for war, and ill situated for purposes of overseas trade.

Taking the short view, Japan is in a more advantageous position than appeared possible a few months ago. Taking the long view, he would be rash, indeed, who ventured to foretell the course of trade in the East in the light of past or present conditions. Who would have believed in the 17th century that one day Europe would be selling calicoes and muslins to India and China ? Who would have believed in the 18th century that a coal-product could replace indigo, and that India would some day have to import the dye from Europe ? Who would have believed in the 19th century that Japan could undersell Lancashire in the English market ? Yet all these things have happened. No one can doubt that Japan has a great future before her, but it is surely unlikely that any one nation can remain indefinitely on the crest of the wave. There is a feeling one encounters wherever one goes that sooner or later, possibly after a period of subordination, China will come to her own again and take the place in the world's markets to which her resources, and the industry of her people, entitle her.

The memoirs of a distinguished Dutch diplomat contained these words :—" of all the ancient civilizations it is only the Chinese which has survived to the present day. To have endured through thousands of years it must contain some elements which all other civilizations have lacked."

The Raid of the Mosquitoes

In British India alone, there are 2,500,000 kinds of insects of which only 40,000 have been studied. Amongst these different insects are some very poisonous ones, but the most dangerous of all have always been the mosquitoes that transmit malaria to mankind.

In the presence of a governor of India, a pedant once asked when these malaria mosquitoes had first been observed. The governor replied " It is much more interesting to me to know how we can get rid of them." This governor thus expressed the ardent wish of 700 millions of malarial sufferers who are attacked every year by malaria.

It has been said that the malaria mosquito must be exterminated, for it cuts down three million human lives every year and causes enormous expenditure on account of the work days lost. It is an undertaking that is receiving serious attention. Towers have been built for bats, which make ruthless war on mosquitoes ; fish have been bred for the purpose of consuming mosquito larvæ ; eucalyptus trees have been planted and fields of clover sown so as to render the mosquitoes harmless.

But how is it that in spite of all these things the malaria mosquitoes continue to exist ? It is because their name is legion and that the regions where they are found are very extensive. The well-known malaria specialist, Dr. Sergent, of the Algiers Pasteur Institute, stated on this subject : " Only a Utopian could hope to exterminate all the malaria mosquitoes to be found on a given territory, even if the latter were only an island."

It is for this reason that quinine treatment for the inhabitants of regions where malaria rages still remains the first measure to be taken and this has certainly been the opinion of the Malaria Commission of the League of Nations, when it drew up its recommendation with regard to the short quinine treatment. This is the prescription : As a preventive measure, take daily six grains of quinine against malaria during the fever season, and for dealing with an attack, a daily dose of 15 grains to 20 grains of quinine during five to seven days. On page 124 of its report, issued in 1938, this Malaria Commission stresses the fact that the harmlessness of quinine makes it a suitable drug for administration by subordinate personnel without constant medical supervision, whereas such supervision is essential in the case of synthetic products.

Effects of the War in Europe

(Continued from page 206)

holdings were down by about $158,000,000 and foreign exchange by about $72,000,000, most of these losses having occurred since September when the drain due to flight of capital, payments for emergency reserves of commodities and war materials, and the general dislocation of international payments became more acute.

Of gold still in the possession of Scandinavian countries, a good part is understood to be located abroad, principally in the United States. For some time these countries, like others in the war zone, have been known to be shifting their gold reserves to places of greater safety. Official figures as to the size of these foreign holdings are lacking, but it is significant that from the outbreak of European hostilities last September to the middle of April our gold imports have included $152,000,000 from Sweden, $44,000,000 from Norway and $5,000,000 from Denmark. According to unofficial reports, the bulk of the Danish gold has been deposited in London, while gold remaining in Norway at the time of the German invasion is said to have been removed to a safe place.

Besides their gold reserves, the above three Scandinavian countries had in the U.S. at the end of January cash balances aggregating in all $258,000,000, distributed as follows : Sweden $162,000,000, Norway $67,000,000 and Denmark $29,000,000.

Moreover, to complete the record, mention should be made of credits authorized to these countries through the Export-Import Bank this year, consisting of $10,000,000 each for Norway and Denmark, $15,000,000 for Sweden and $1,000,000 for Iceland. Except for a small amount in the case of Norway, none of these credits has been utilized. To what extent they may be affected by recent developments is not clear at this time.

Outside the Scandinavian area, the effect of this new eruption of the war front has been to increase the general state of alarm regarding European conditions and to intensify pressure upon the exchanges, particularly those of neutrals contiguous with Germany.

The Port of Tientsin

The Shipping Center of North China

By HERBERT CHATLEY, Former Chief Engineer, the Whangpoo Conservancy Board, Shanghai

(The Dock and Harbor Authority)

THE City of Tientsin (T'ien Ching, " The Heavenly Ford ") is quite old, having been founded in 1368 and walled in 1404. Long before the arrival of European shipping it was a major entrepot for the trade carried on by sea-going junks plying between the ports of the Yellow Sea and it was also an important halt on the Grand Canal. From the fourteenth century the latter was the principal means of communication between Central China and the new capital, Peking, and vast volumes of " tribute rice " and other commodities were shipped by this canal. The railways and steamer traffic have entirely displaced the through canal traffic, more especially since the latter was badly damaged by the great diversion of the Yellow River in the middle of the nineteenth century.

Tientsin is the effective port for the late capital, Peking, from which it is only 90 miles distant. The Grand Canal goes on to within a few miles of Peking itself, the actual terminus being at a place called Tungchou, about ten miles from Peking, whence small canals do actually reach the city itself.

An elaborate system of rivers and canals connects Tientsin with most parts of the former metropolitan province of Chihli ("Metropolitanly controlled"), now called Hopei (" North of the Yellow River "). Roads, formerly mostly just cart and camel tracks but now dirt roads traversable by well-built cars, connect with the principal towns. Camel tracks lead into Mongolia and to the north-western provinces. There are railway connections to the north-west via Kalgan to the middle reaches of the Yellow River, to the north-east to Manchuria and so by Siberia to Europe and to the south by way of Tsinan (the capital of the province of Shantung) to the Yangtze River at Pukow, opposite to Nanking. In recent years there have also been aerial connections.

In very ancient times the Yellow River ran over the site of Tientsin and the country to the south of it is seamed with old channels of that famous stream. The plain in which it is situated is therefore part of the Great Plain, which is mainly the huge delta of the Yellow River. For nearly two thousand years however the plain building in this neighborhood has been the work of smaller local rivers, especially the Yungting Ho or Hun Ho, which comes down from the Mongolian plateau.

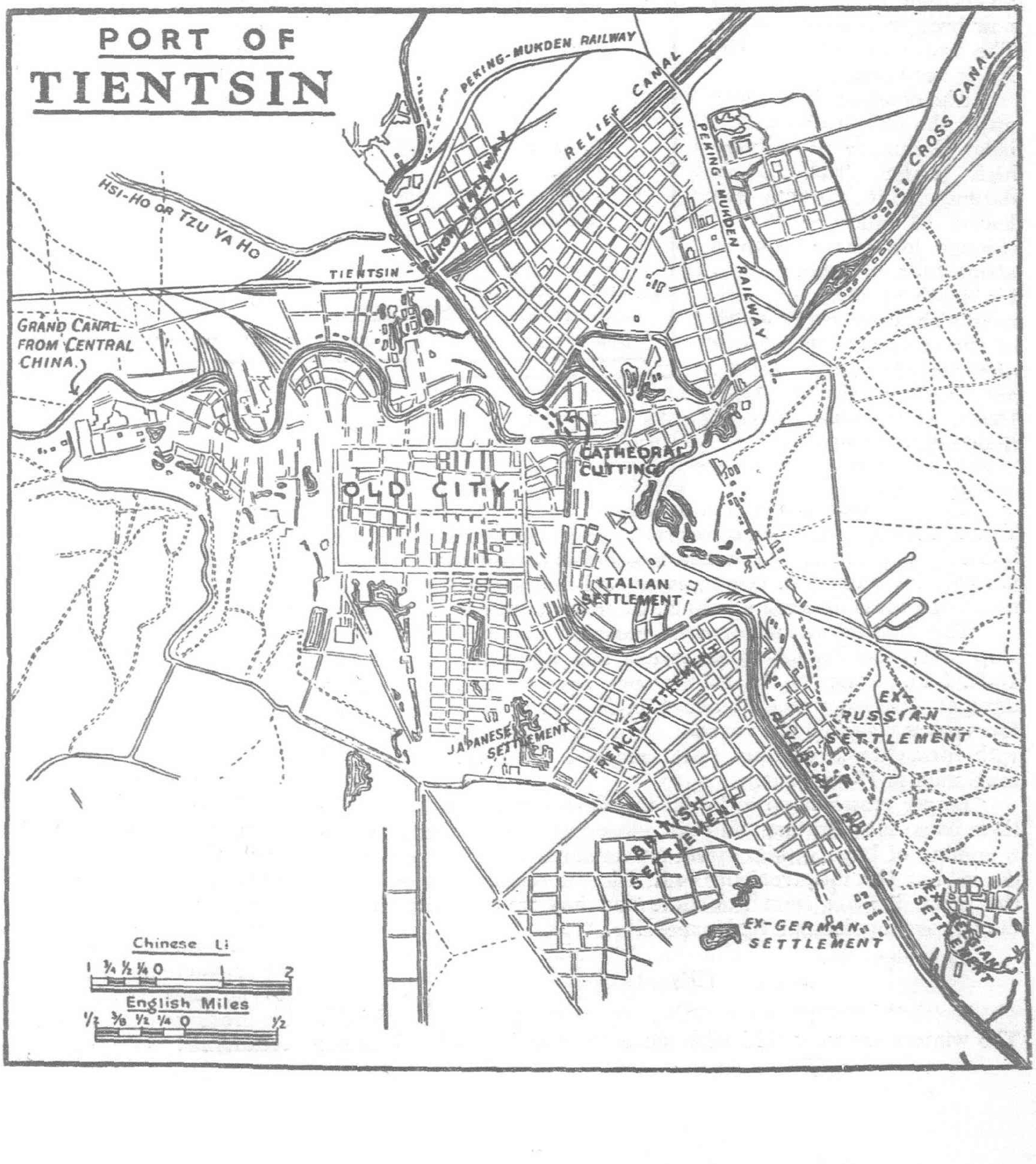
Hydrography

Tientsin is situated at the head of a tidal channel termed the Hai Ho (" Sea River ") which until 1903 was about 60 miles long from the city to the sea at Taku. This waterway is the joint mouth of a number of rivers of which the principal are :

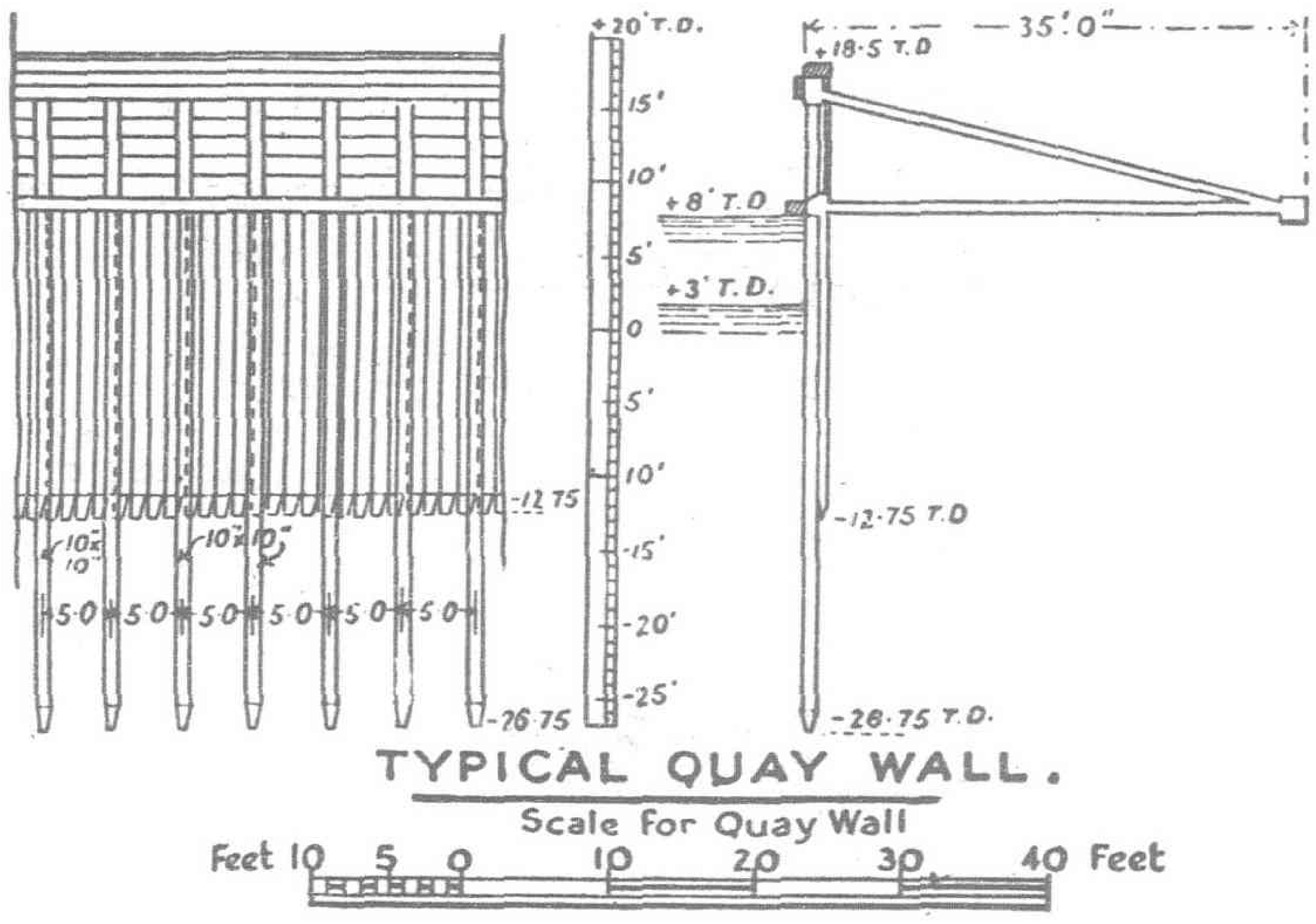
(1) The Yungting or Hun Ho.
(2) The Pei Yun Ho, or northern Grand Canal, which continues north of Peking as a river coming from the hills which border Mongolia.
(3) The Hsi or Tzeya Ho, which drains the central parts of the province of Hopei.
(4) The Nanyun Ho or southern Grand Canal, which as the Wei Ho (Ho means " River "), drains the southwestern part of the same province, and is connected artificially through a chain of lakes on the west side of the Province of Shantung to the Hwai River system in the Province of Kiangsu.

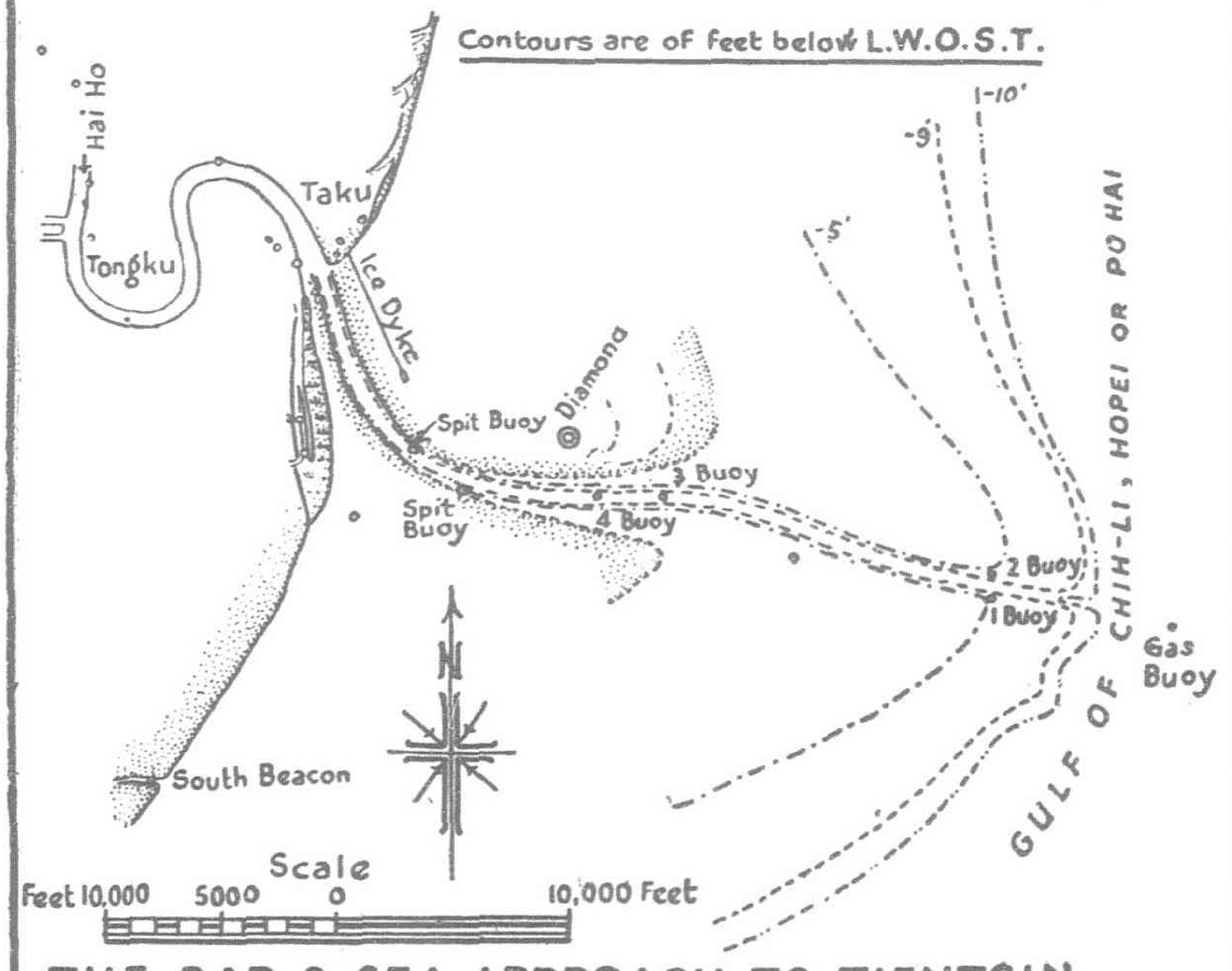
These rivers have an immense catchment area, say 80,000 square statute miles, and with small exceptions, it all drains through the Hai Ho. While the annual total rainfall is not high, it is concentrated in the months of June, July and August, and in addition to this it comes in short bursts of great intensity during those months, so that the fluctuation of discharge is great and when the rain does come the run-off fraction is high. Speaking generally the hills have been stripped of vegetation in the intense demand for fuel, fodder and agricultural land so that the erosion is very great and the silt content extreme.

Owing to the ancient deposits of the Yellow River and the more recent deposits of the Hun Ho the bed of the Gulf of Hopei (or Pohai) is comparatively shallow, being still only about 15-ft. deep below low water at a distance of seven or eight miles offshore



at the mouth of the Hai Ho.


TYPICAL QUAY WALL.



THE BAR & SEA APPROACH TO TIENTSIN.

The original sectional area of the Hai Ho in 1903 was only about 10,000 sq. ft. at mean water level. The discharge during a summer freshet often exceeds 15,000 cu. ft. per second, but fortunately it rarely happens that freshets originate in the Hun Ho and Hsi Ho (the two principal sources) simultaneously.

Tides

At the entrance to the Hai Ho the mean range is 6.93-ft., the average water level being 4.90-ft. above the "Taku Datum." Summer levels are about one foot higher than mean and winter levels about one foot below the mean. The spring tide range is about 10-ft. and the neap about 4-ft. Highest water level is about 17-ft. above datum and lowest approximately at datum level. At Tientsin, prior to the conservancy work, the tidal range averaged only about one foot, which has now been increased to 4½-ft. The water slope in the Hai Ho is very small.

The depth of the fairway up to the city is about 5-ft. below datum, or, at ordinary high water (8-ft. above datum), 13-ft., but in the lowest 18 miles or so the through low water depth is about 10-ft. giving a navigable depth of 18-ft. at ordinary high water. The width of the channel at low water diminishes from about 600-ft. near the mouth to about 150-ft. at the city. These depths and widths are much better than existed formerly.

The Bar

The principal obstruction to shipping is the entrance bar off Taku. At the time when conservancy operations commenced this had only a depth of one or two feet below datum level. It now is rarely less than 6-ft. below datum and may be as much as 9-ft. enabling vessels drawing say 16-ft. to cross at ordinary high water.

The greatest actual draught recorded was in 1925 when a ship called the *Pei Chang* arrived at Tientsin with a draught of 18-ft. 3-in. Prior to the conservancy operations the maximum draught entering was only about 11-ft. and as a matter of fact few vessels ventured the voyage. In 1925 no less than 1,000 ships with draughts exceeding 13-ft. reached Tientsin. The usual maximum is 13 to 14-ft.

Larger vessels have to lay in the roads outside and discharge their cargo into lighters and their passengers into tenders. Quite a number of large vessels (usual maximum say 12,000 tons gross) do so, but the inconvenience and delay is serious and owing to the great distance from the shore and bad weather the landing may prove unpleasant and expensive.

Climate

North China presents rather rigorous weather conditions. The winters are very cold with some snow and occasional strong continental gales which in the spring become bad dust storms. The summer is hot and damp with occasional gales from the southern typhoon area. Autumn is the best time and resembles a good English summer.

The maximum recorded summer temperature is 104.72 degrees (F) and the minimum recorded winter temperature is 1.3 degrees (F) below zero.

The average during July is 80.8°; the general average for the year 55.2°, and the average for January 27.9°. The average daily range of temperature is 17 degrees in January and 16 degrees in July, so that in July and August there are many days which have temperatures of about 90 degrees and in January and February there are many days in which the temperature falls to about 20 degrees.

The general wind direction is easterly, veering from N.N.W. in January to S.S.E. in July. There is a region of very high pressure over Mongolia in the winter from which dry air streams outwards carrying a great deal of dust, and in the summer there is a low pressure area in western China towards which spirally flows a return current of mositure laden air from the China Sea. The locally generated eddies accompanying these annual changes appear as violent storms which compare with but not quite equal the typhoons which occur further south.

Snow may occur between the end of November and the beginning of March, but as the average precipitation in the months of December, January and February only totals about half-an-inch it is rare that the snowfall is sufficient to be inconvenient. Ice may however be very serious. The season 1935-6 was the severest that had been experienced since the conservancy authorities had commenced to use icebreakers and the 1936 report gives a considerable amount of information. "The severity of the winter caused the formation of enormous ice-fields in the Gulf of (Pohai means "the Northern Sea"). These ice-fields extended at times into the Gulf as far as Laotiehshan Promontory. The approach to the port was, therefore, made extremely difficult. By the end of January easterly winds set in, causing the gulf ice to accumulate in front of the Taku Bar. Many vessels, especially those of weaker power, were caught in these ice-fields and drifted helplessly around according to the direction of the winds and tides. "The ice season in the winter referred to was from December 8 to March 15. On February 3 the Harbormaster gave out a warning to the effect that "ice conditions in the Gulf of Pohai were impracticable and that mariners were advised that they would navigate at their own risk."

That year was exceptionally bad, but in almost all years there is some difficulty and prior to 1914 there was no steamer traffic during the ice season. The conservancy ice-breakers are since that time usually able to cope with the conditions.

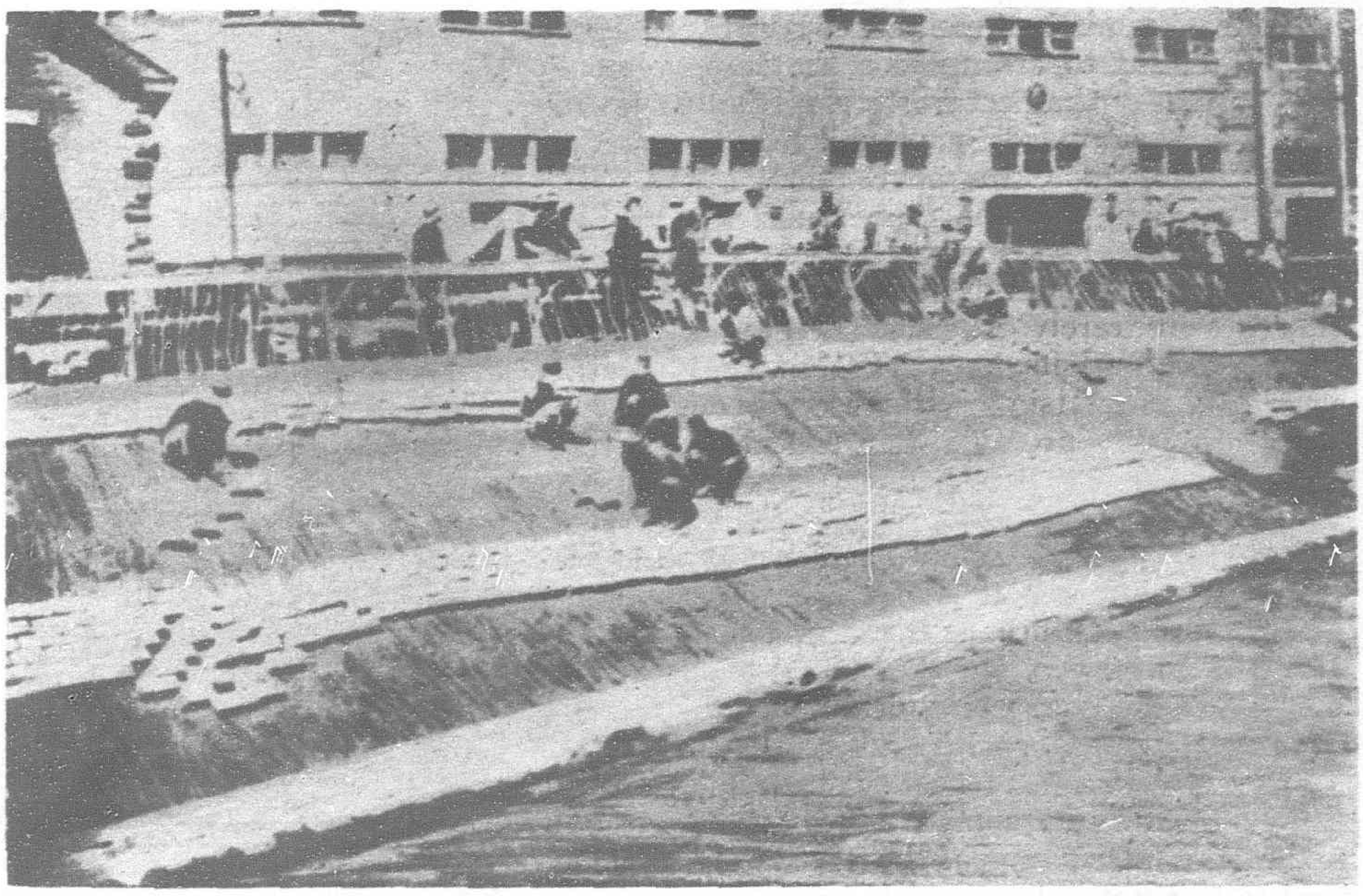
History

As the result of war between China and England and France over the long-standing question of inequality of treatment of non-Chinese, Tientsin was opened to foreign trade in 1860, and certain areas were assigned by the Chinese Government for the residence of non-Chinese merchants. These areas, termed the Concessions, lie to the south and east of the old city and border the banks of the Hai Ho, which thus forms the harbor of Tientsin. It should be explained that, owing to the entirely different laws and customs of China from those of occidentals, it was necessary to apply a system of "extraterritoriality" to non-Chinese, such as had been found successful in the Near East. Under this system, the occidentals remained subject to their own laws in all matters except certain fixed trade and land taxes, and their Consuls were responsible for them to the Chinese Government. Such Consular jurisdiction has been the subject of much heart-burning amongst the Chinese in recent years, but it must be remembered that, at the time when it was instituted, no other *modus vivendi* was possible and it has been the isolation from Chinese politics and revolutions that enabled the Concessions to prosper to the extent which now renders them the object of envy. All except the Japanese, British, French and Italian concessions have been resumed by the Chinese but it is in those four that the principal shipping activities occur.

From 1860 Tientsin has played a very important part in China's foreign trade, concentrating the products from and imports to about one-third of the area of China. Prior to 1900 the cargoes from steamships were practically all landed at a place called Tangku, just in the lowest bight of the Hai Ho and some 37 miles by road from Tientsin, and were lightered up to the city. Nevertheless the quantities and values were quite appreciable and, in addition to its status as a prefectural city, Tientsin became the fourth most important trading center in China, the others being Shanghai, Hankow and Canton.

As the trade grew and the size of ships from Europe, Japan and America expanded, there was increasing dissatisfaction with the navigational difficulties of the river. This channel was narrow, tortuous, cumbered with shifting sandbanks, subject to alternate floods and periods of extreme shallowness and generally unsuited to steam navigation except by tugs of small draught.

As the result of the International war against China in 1900, due to the "Boxer" rising, the Chinese Government was induced to agree to the formation of the Hai Ho Conservancy Commission, whose duty it was to improve the river. Up to a point it has been remarkably successful, as will be explained later. From 1927 a new phase has developed, in which the Chinese Government itself has participated and although so far little has been done, except in respect to the partial control of the Hun Ho, the tendencies for the work to come more and more under national control will doubtless reappear when the present conflict with the Japanese has been decided.



Construction of the mattress on the slope above low water line

"The Great Northern Port"

In 1919, Dr Sun Wen (generally known in Europe as Sun Yat-sen and in China as Sun Chung-shan) issued a scheme for "The International Development of China," which was a grandiose project for the modernization of China, with a considerable amount of detail, much of it of a highly speculative character. A few years later he was recognized as the national "Leader" in the sense which Mussolini and Hitler have made famous, and on his death in 1925 this program became part of his political testament and so, in the party mind, an "inspired" document.

Included in the program was a scheme for a "Great Northern Port" to be built on the coast some 30 miles east of Tientsin. While nothing has been done to realize this scheme, nor is it at present likely that anything will be done, it has had the unfortunate effect of prejudicing the Chinese Government against a full cooperation in the development of Tientsin to its full possibilities.

The Hai Ho Improvement

As already mentioned, the outcome of the Boxer troubles was the creation of the Hai Ho Conservancy Commission. This consists of three officials :—

A Consul representing the Consular Body, and thereby the foreign shipping interests.

A Customs representative, usually the Commissioner of Customs for the port. The Chinese Maritime Customs is itself largely officered by foreigners, on account of the foreign loan obligations of China.

The Customs Tao T'ai or Superintendent, a Chinese Customs official, who ranks with the Commissioner.

Also a Treasurer, a prominent foreign resident.

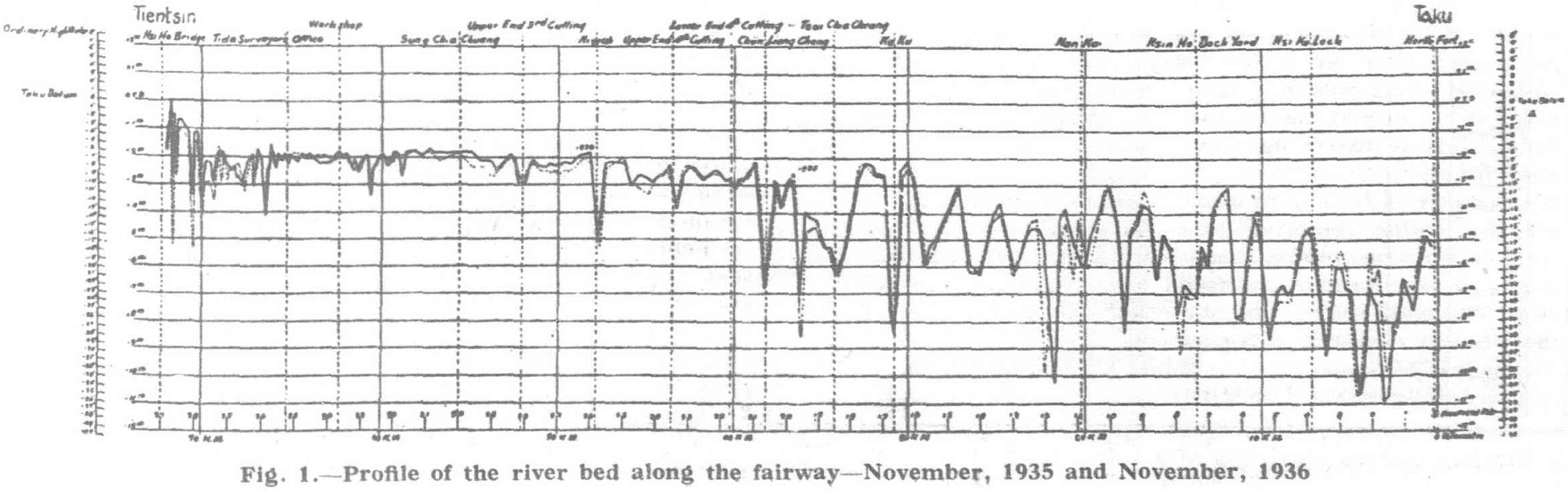


Fig. 1.—Profile of the river bed along the fairway—November, 1935 and November, 1936

The Commission commenced work in 1902 and proceeded to arrange for the improvement of the river by the best western methods known. Funds were provided by a small tax on cargo, a tax on shipping and a government quota. In recent years the income from these sources has averaged about one million Chinese dollars, but was, of course, less in the early years.

The work may be summarized as follows:—

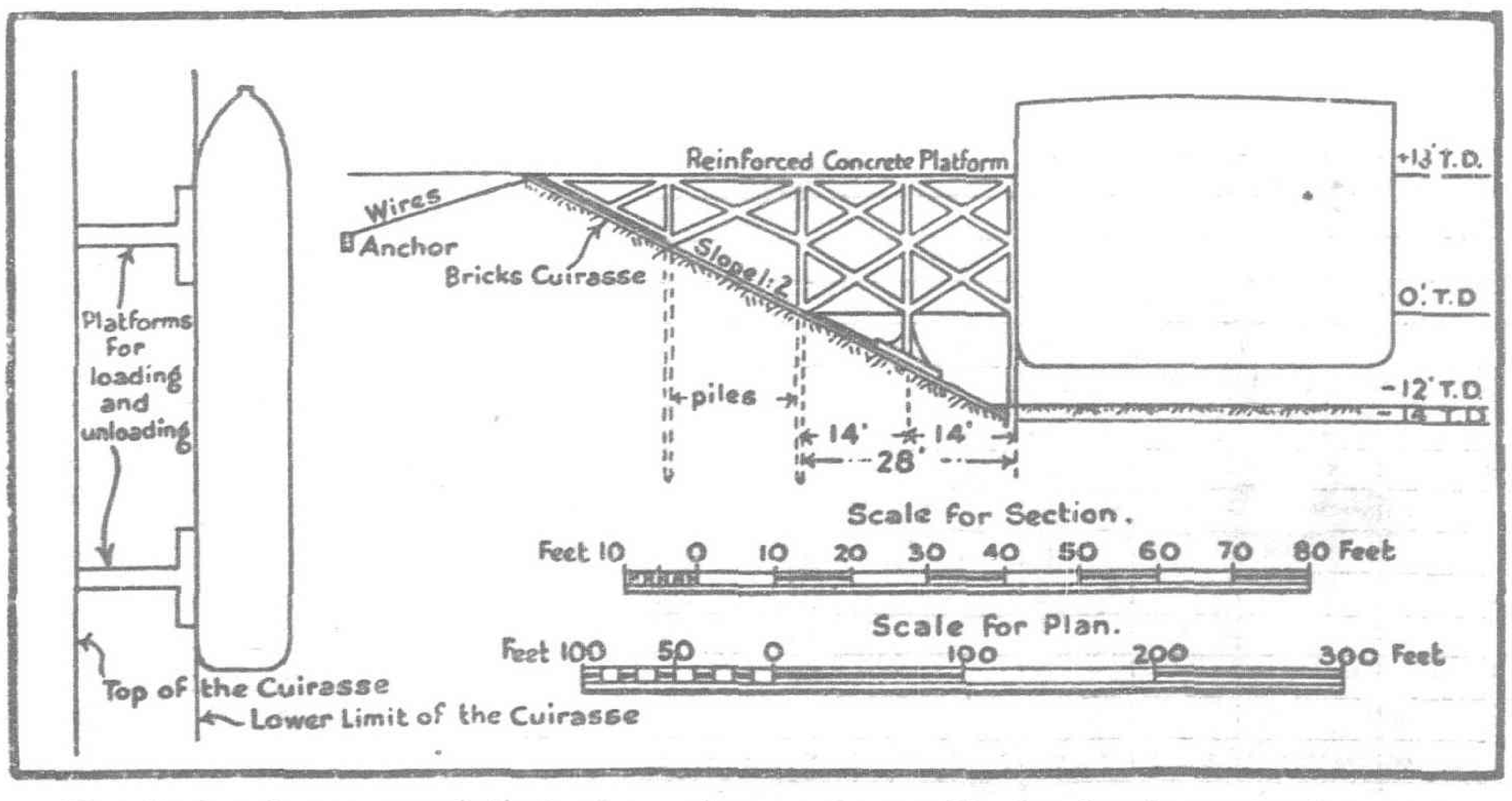
(*a*) The rectification of the channel by cut-offs of the more tortuous bends. The distance from Tientsin to Taku has been shortened by about 20 miles by this means.
(*b*) Dredging of shallows and projections for the normalization of the section.
(*c*) Disposal of the dredged material for land raising.
(*d*) Control of riparian works.
(*e*) Co-operation with the inland authorities in drainage of flood water and the protection of low areas by dykes.

In the later stages of the work, the following further features appear:—

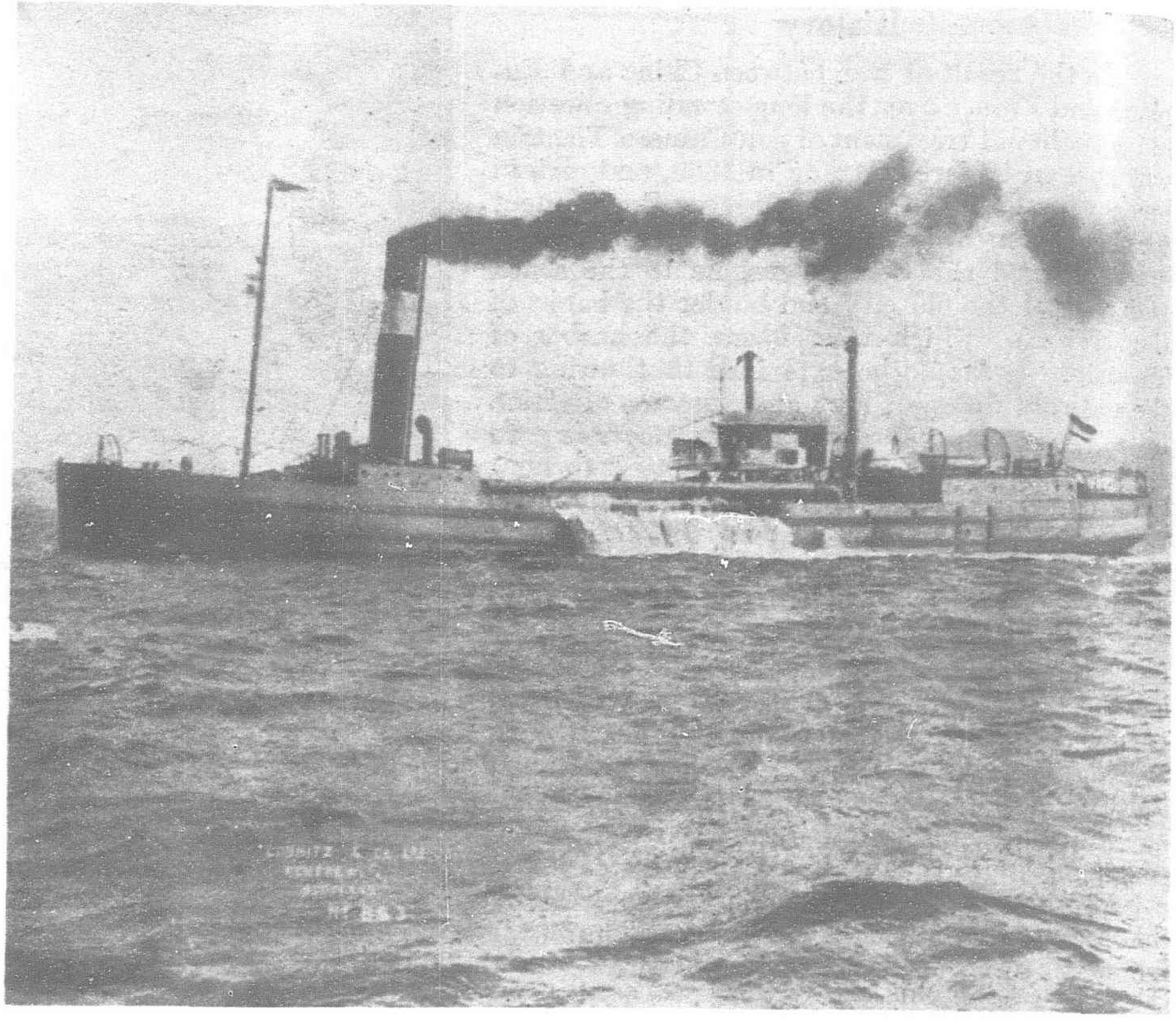
(*f*) Dredging of the ocean bar.
(*g*) Training walls at the entrance for ice and current control.
(*h*) Ice-breaking.
(*i*) An international bridge connecting the French Concession with the East Station in the (former) Russian Concession.
(*j*) Collaboration with inland authorities in the construction of sluices and regulators for the control or diversion of excess water or silt.

The initial problem was rather simple, namely the reduction of the tortuosity. Seven cuts were made, involving the removal of about ten million cu. yds. of soil. This phase of the work was completed in 1923. Not only did it straighten the channel, but the reduction of the length and the removal of curves enhanced the tidal flow so that in Tientsin itself there is now a tide of four or five feet range as against an original value of about one foot. Furthermore, the stronger flow of flood and ebb scoured out the entrance bar to a depth of about 7-ft. below datum and greatly improved the draining power of the river. Regular dredging in the harbor was carried on from the beginning and by the end of 1936 nearly sixteen million cubic yards had been removed, about ten per cent of which was dumped into the old bayous, but the majority was pumped ashore for land reclamation. As the average level of the Tientsin plain was necessarily about the level of ordinary spring tide this was a means of protecting important areas from flood damage during excessive tides or upland floods.

The grand total of dredging and excavation done by the Commission up to the end of 1936, not including the Bar work, was about 32 million cubic yards.


Reinforced Concrete Platform
+13' T.D.
Wires
Anchor
Bricks Cuirasse
Slope 1:2
0' T.D
-12' T.D
-14' T.D
Platforms for loading and unloading
piles
14'
14'
28'
Scale for Section.
Feet 10 0 10 20 30 40 50 60 70 80 Feet
Scale for Plan.
Feet 100 50 0 100 200 300 Feet
Top of the Cuirasse
Lower Limit of the Cuirasse

Bunding scheme consisting of a cuirasse decauville for bank protection and platforms for unloading cargo



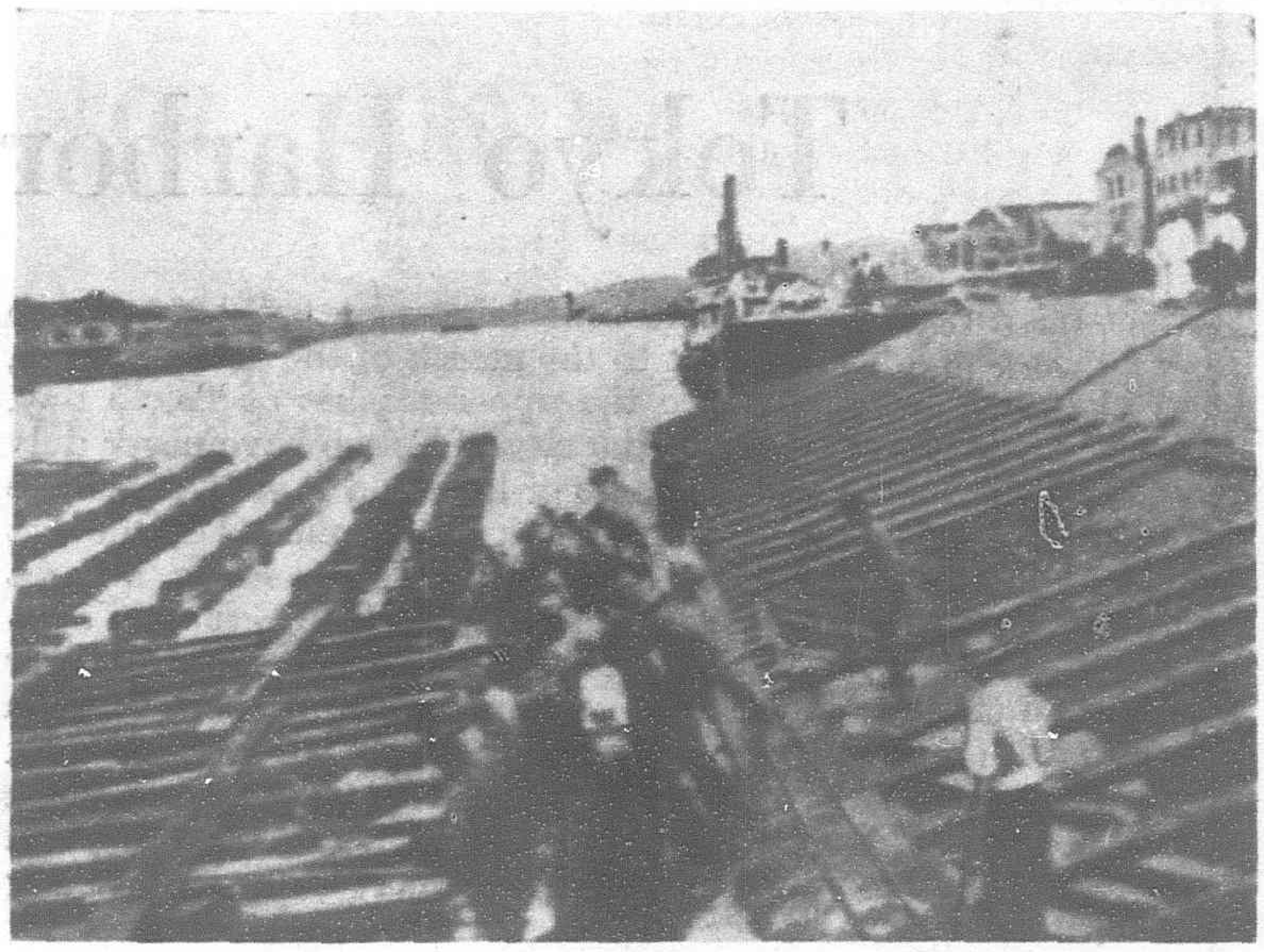
Drag suction dredger "Kwai Li"

The banks of the Hai Ho are protected at berths by simple sheet pile "bundings," built by the owners of the frontages, but the Conservancy has endeavored to introduce new methods. The illustrations show a method of protecting the sloping shores at a "swinging berth" with concrete blocks strung on wires, thus forming a flexible mattress reaching down to the bed of the river.

The Silt Influx Problem

Although the regulation was quite successful it still happened from time to time that great inconvenience was caused to shipping by temporary deposits of silt which partially choked the channel, and these could nearly always be traced to the Hun Ho which enters the Pei Yun Ho (North Grand Canal) some miles above Tientsin. The three monthly freshet seasons of July, August and September of the Hun Ho may carry 20 million tons of silt and although the material is so fine that at full flood as much as 20 per cent by weight can be carried in suspension, it is inevitable that much should be deposited. In recent years the conditions have been aggravated by the advance of the so-called delta of the Hun Ho (actually a dyked-in area just above its junction with the Grand Canal) towards Tientsin and by the repairing of the dykes of that river, so that certain escapes which formerly relieved the Hai Ho of its immediate maximum discharge were no longer available. Many schemes were considered and discussed with the other parties concerned, such as diversion of the Hun Ho to a new direct channel to the sea, either north or south, or its diversion to low marshy lands away to the south, all of which failed owing to the immense funds required, land difficulties or political obstruction. Eventually a palliative scheme was put into force which has been a temporary relief. A regulator was built in the channel of the Peiyun Ho just below the mouth of the Hun Ho and a sluice by means of which during spates the discharge of the Hun Ho could be diverted partially to certain low areas to the east, whence the clear water could be gradually drained into an adjacent river system (The Peitang Ho) or preferably brought back as clear water into the Hai Ho. The operation of this has not been satisfactory owing to inadequate

Mattress supported by oil drums before sinking



Building timber frame to support mattress

arrangements in connection with the flooded areas, but it has been some relief.

The terrible floods which have from time to time injured Tientsin (e.g., in 1939), necessitated relief works and the Commission has participated in the construction of lateral canals and flood walls, but, as this is not a port activity, it is merely mentioned here. Schemes for damming the Hun Ho have long been under consideration.

The Bar Problem

As has been mentioned the draught conditions on the bar are the real criterion which determines the admission of ships to the port, and an improvement thereon would be of great value even if the ships passing it could only reach Tangku just inside the mouth of the Hai Ho

After several years study of the subject, the then Engineer-in-Chief, Mr. T. Pincione, recommended the Commission to acquire a drag suction dredger. He drew up a highly detailed specification for what he considered a suitable vessel and tenders were invited. The contract was placed with Messrs. Lobnitz and the dredger was delivered in 1921. She is 230-ft. long, 42-ft. beam and 16-ft. deep to the main deck. The loaded draught is only 10-ft. and the hopper capacity is 500 cubic meters or say 650 cubic yards. There are two main boilers with a heating surface of 4,300 square feet and three compound engines 16-in. and 37-in. diameter by 24-in. stroke, each rated at 350 h.p., two for propelling and one for pumping. The dredger is of the trailing Fruehling type, and is named *Kwai Li.*

Sinking mattress

The results of this dredging, which has been carried on since the winter of 1921 have not been as good as was hoped, but it has proved possible to maintain a greater depth on the bar than would otherwise have been the case. She cannot work during the ice season, but a characteristic year's work shows 1,604 hours operation and 448 hopper loads discharged. The amount discharged was only 90,000 cubic meters, so that since the hopper is 500 cubic meters the average hopper was only one-third full. This, however, only represents the denser material settled in the hopper, the fines running continuously overboard.

The draught limitation makes it practically impossible to build a hopper of adequate size and the silt is so fine that it will not settle satisfactorily.

An attempt was made in 1926 to train the bar between parallel walls, built on rubble stone between timber cribs, but the timber was unexpectedly attacked by teredo and a special technical committee (of which the writer was chairman) was obliged to recommend their abandonment. A similar wall to exclude wind-driven ice floes from the mouth of the channel has been successfully built.

Effects of the Present Hostilities

No particulars are available as to the disturbance to harbor operations which has been caused by the present conflict in China, but there can be little doubt that much of the work has had to be suspended. On the other hand, the arrival of vessels of known draught which is recorded from time to time shows that the river is continuing to serve as a means of access.

Statistics of the seaborne trade are kept and published by the Chinese Maritime Customs. Formerly these were given in "Customs Taels," a silver unit of account approximately equal to one-and-a-half Chinese silver dollars. The Chinese dollar is the same thing as the original American silver dollar, but not having been related to a gold standard it is, or was, only worth its silver content. Since early last year it has fallen below its nominal silver value and is at the moment only worth 4d. Before the war of 1914 for some time it was worth about 1s. 8d., and after the war it rose to several times that value and fell back again slowly. It is thus rather difficult to convey to an English reader the significance of the trade figures, especially when it is considered that the import values include carriage, insurance and freight, whereas the export values are simply "free on board."

Since the purchasing power of the Chinese is in dollars, the values are more stable if reckoned in that currency. With these provisoes it may be stated that the imports into Tientsin have been from 1914 inwards about one hundred million dollars annually, of which about two-thirds were imports from abroad. The exports have grown in the same period from about fifty million dollars to over one hundred million dollars (in 1936).

(Continued on page 226)

Tokyo Harbor Improvements

With an extensive harbor containing some 9,250,000 square meters lying adjacent to the mouth of the Sumida River, where it empties into the upper reaches of Tokyo Bay, most of the people of the city of Tokyo have never duly recognized the practical advantages of having a readily accessible port at their front door. This spacious harbor, bounded on the east by the Yedo River and on the south by the Tama River, an area approximating that of the wards of Nihonbashi and Kyobashi combined, is constantly being improved by the Municipal Harbor Board in an effort to increase its usefulness as well as to maintain its place with Japan's half a dozen principal ports. The work under way now was begun in November, 1931, and called for an estimated outlay of 36 million yen within a period of thirteen years for reconstruction and additions to port facilities existing at that time.

Late in December, 1939, the Tokyo Municipal Office announced another program to enlarge the harbor at a cost of 30 million yen to be expended during the course of the coming decade. Under the new plan, work will progress concurrently with the excavation of the Keihin (Tokyo-Yokohama) Canal, which will link the two ports by a shorter water route. When this plan is carried out, cargo ships of the 10,000-ton class can be tied up alongside the wharves at Takeshiba-cho, Hinode-cho, Shibaura, Kamata and other points bordering Tokyo's long waterfront.

Partial Outline of Early Development

Project	*Time*	*Cost*	*Nature of Work*
First Sumida River Mouth Improvement	1906-1911	*Yen* 2,512,406	Dredging: Eitaibashi (bridge) to Harbor Mouth—distance, 9,550 meters; 91 to 127 meters wide; 3.6 meters deep. Reclamation: 474,441 sq. meters. Hinode-cho Wharf: 667 meters long; 3.6 meters deep.
Second Sumida River Mouth Improvement	1911-1916	1,923,289	Dredging: Eitaibashi to Harbor Mouth—distance, 9,160 ms.; 127 to 218 ms. wide; 3.6 ms. deep. Reclamation: 782,657 sq. ms. Groin: 3,680 ms. long.
Facilities for Connection between Land and Water	1924-1925	1,573,530	Hinode-cho Pier: 564 ms. long; 6.1 ms. deep. Hinode-cho Shed: Area of 17,587 sq. ms. under eight roofs. Water Service for Ships: seven water plugs and two tug boats.
Third Sumida River Mouth Improvement	1922-1932	17,944,563	Dredging Ship Channel and Anchorage: Area, 3,736,000 sq. ms.; 2.5 to 7.6 ms. deep. Reclamation: Area, 3,512,130 sq. ms. Shibaura-cho Quay Wall: 909 ms. long; 7.6 ms. deep. Temporary Breakwater: From *Daiba* No. 3 (Old Fort) to Reclaimed Land No. Six—2,386 ms. long. Groin: 877 ms. long. Mooring Buoys: 21 Light Buoys: 2. Mark Buoys: 13. Landing: 282 ms. long.
Harbor Railway Construction	1928-1930	272,074	Railway and Sidings: 2,700 ms.
One Movable Bridge	1933-	4,200,000	Balanced Lever Lifting Bridge, a triple-span, double-leaf bascule, now two-thirds completed.*

*See the June, 1939, number of *The Far Eastern Review* for a detailed account of the *Kachidoki* Drawbridge.

Notwithstanding a seeming apathy Tokyo citizens habitually show toward the city's reputation as a port, the past ten years has witnessed a steady development in essential harbor facilities. In volume as well as value of both domestic and foreign trade the Japanese Capital now stands fifth among the leading ports of the Empire.

Although Tokyo holds an important place as a Japanese port today, this fact has been minimized in the public mind owing to reasons officially given as follows:

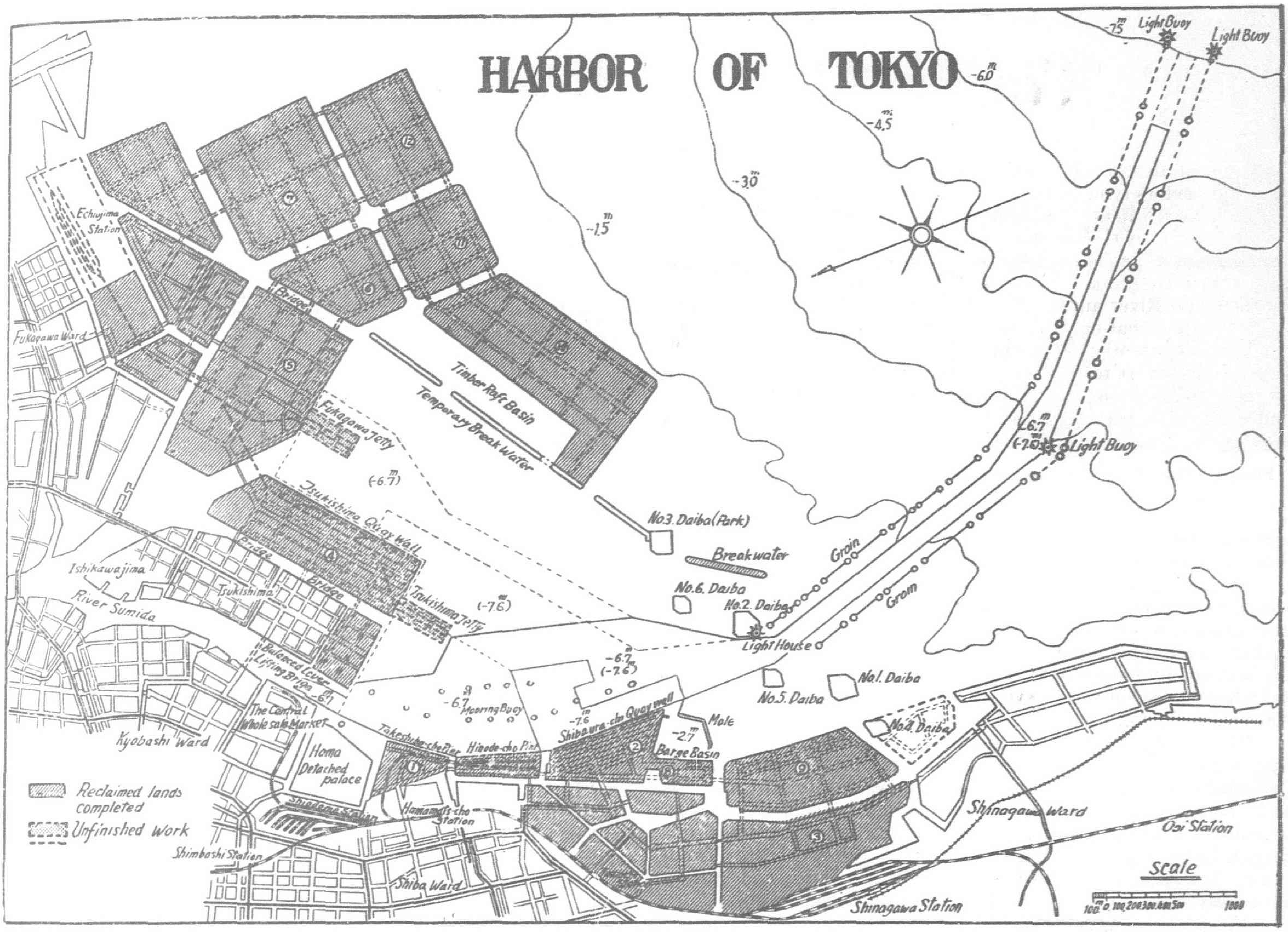
1. (1) Only a few years have elapsed since the time Tokyo municipal authorities began seriously to develop the city's functions as a port.
2. (2) For transhipment to the capital by rail or lighter, most foreign cargoes originating in or destined for Tokyo have been handled at the Yokohama wharves about nineteen miles down the coast. The people of Tokyo have thus seldom seen ocean-going vessels of large tonnage anchor in the harbor.
3. (3) The rise of Tokyo as the capital city of the nation, emphasizing political and administrative leadership, is the chief factor recognized by its people, and the public at large has attached little real value to the harbor itself.

Yet, the rapid growth of Tokyo as a port since the devastating earthquakes and fires in September, 1923, has been without precedent in the Far East. It was to a great extent due to this unforeseen catastrophe that the improvement of Tokyo Harbor received such impetus. Equipment and facilities capable of handling annually some seven and a quarter million tons of freight have already been provided. Dockage and anchorage for ships of from 3,000 to 6,000 gross tons is available now.

Previous to 1924 harbor construction work at Tokyo had been delayed because of efforts diverted in favor of modernizing the capital's public utility enterprises. With the first and second Sumida River improvement projects, costing close to four and a half million yen, completed, the work of port development began in earnest. These endeavors consisted of dredging a ship channel and anchorage area to a point beyond the six *Daiba* (feudal fortified islets) in Tokyo Bay. The dredging of a channel 3.6 meters deep and from 127 to 218 meters wide made possible the reclamation of nearly 1,260,000 square meters of land with the earth and debris brought up from the river bed and the bottom of the bay.

Although harbor construction work in the past had been on a relatively small scale, vessels of light draft laden with relief supplies had been able to enter Tokyo Harbor at their risk during the latter part of 1923. Ships up to 2,000 tons, then above the harbor's capacity, unloaded a large volume of supplies at Tokyo. At low tide many of them were grounded on the harbor floor. At this time harbor construction for the port of Tokyo began to be recognized generally as a necessary undertaking for the restoration of the metropolis.

The third Sumida River improvement project had already been started with an appropriation of about 18 million yen and an additional million and a half yen during 1924 and 1925 was to go into land and water connections. Completion of these projects enabled the harbor to take care of an annual volume of 3,600,000 tons of cargo.

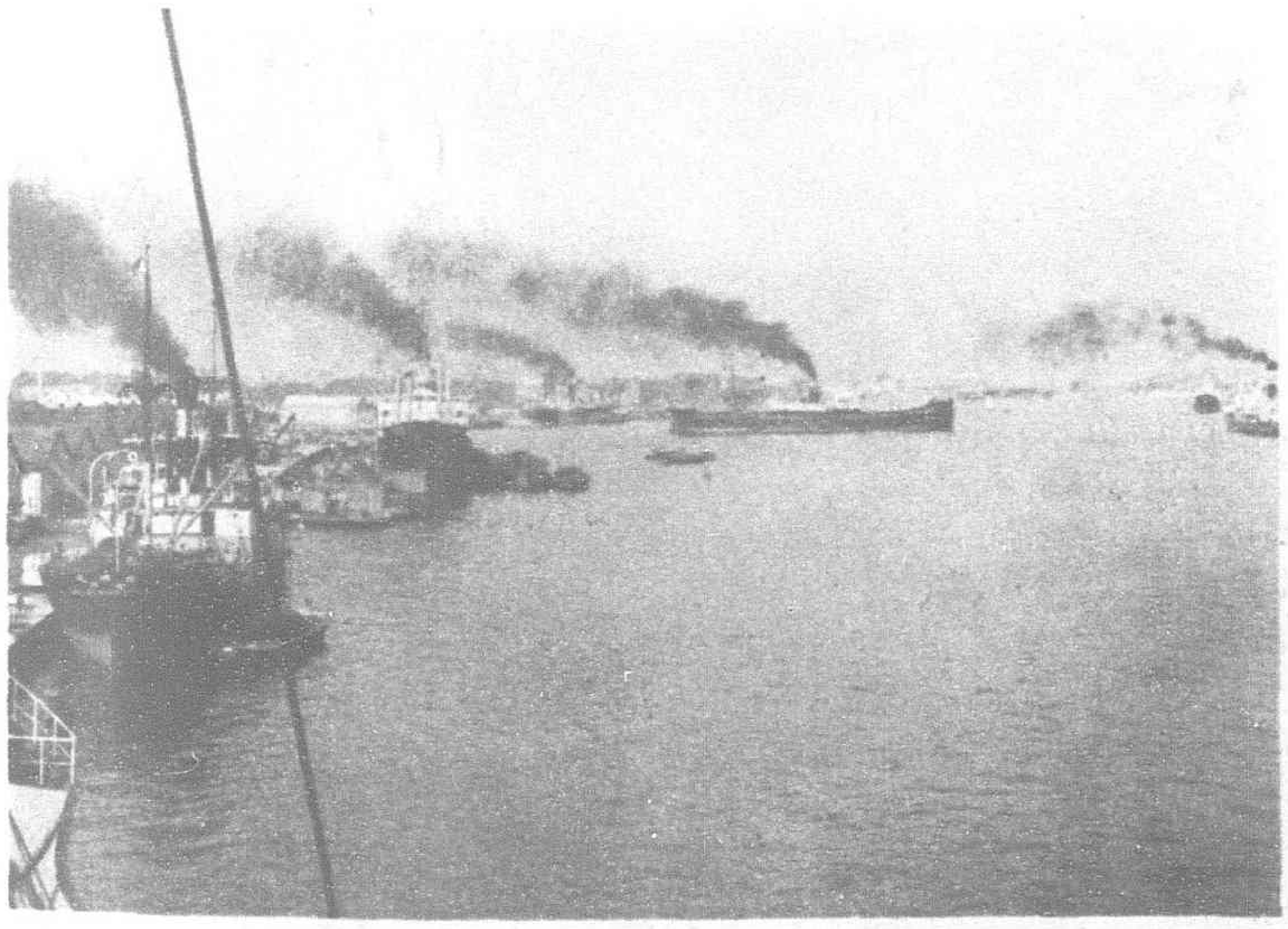


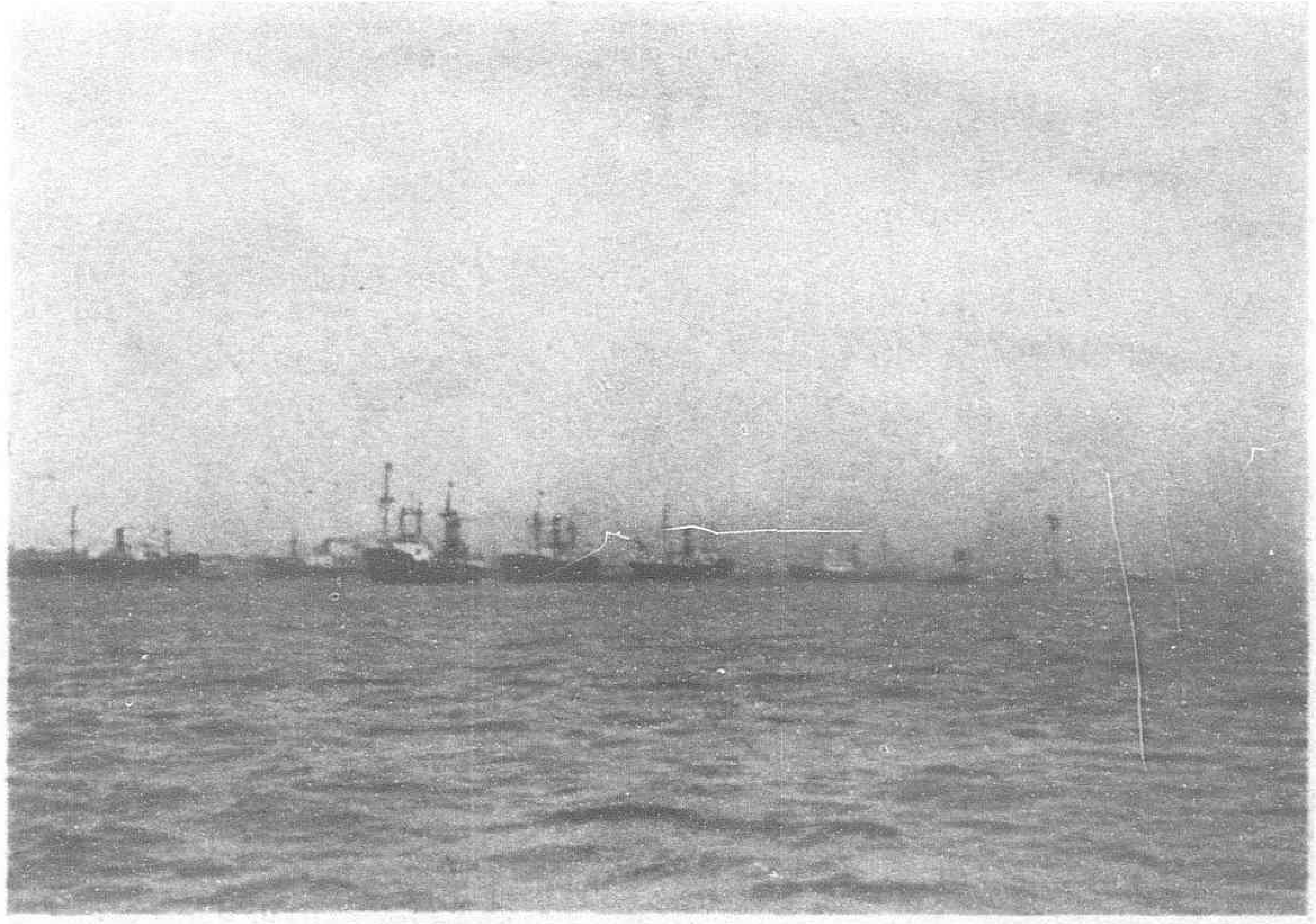
Freight in Tokyo Harbor is handled by direct shipment of incoming or outgoing cargoes by steamer to or from the harbor, or by unloading at Yokohama from steamer to lighters, which are towed by tugs up the bay to Tokyo.

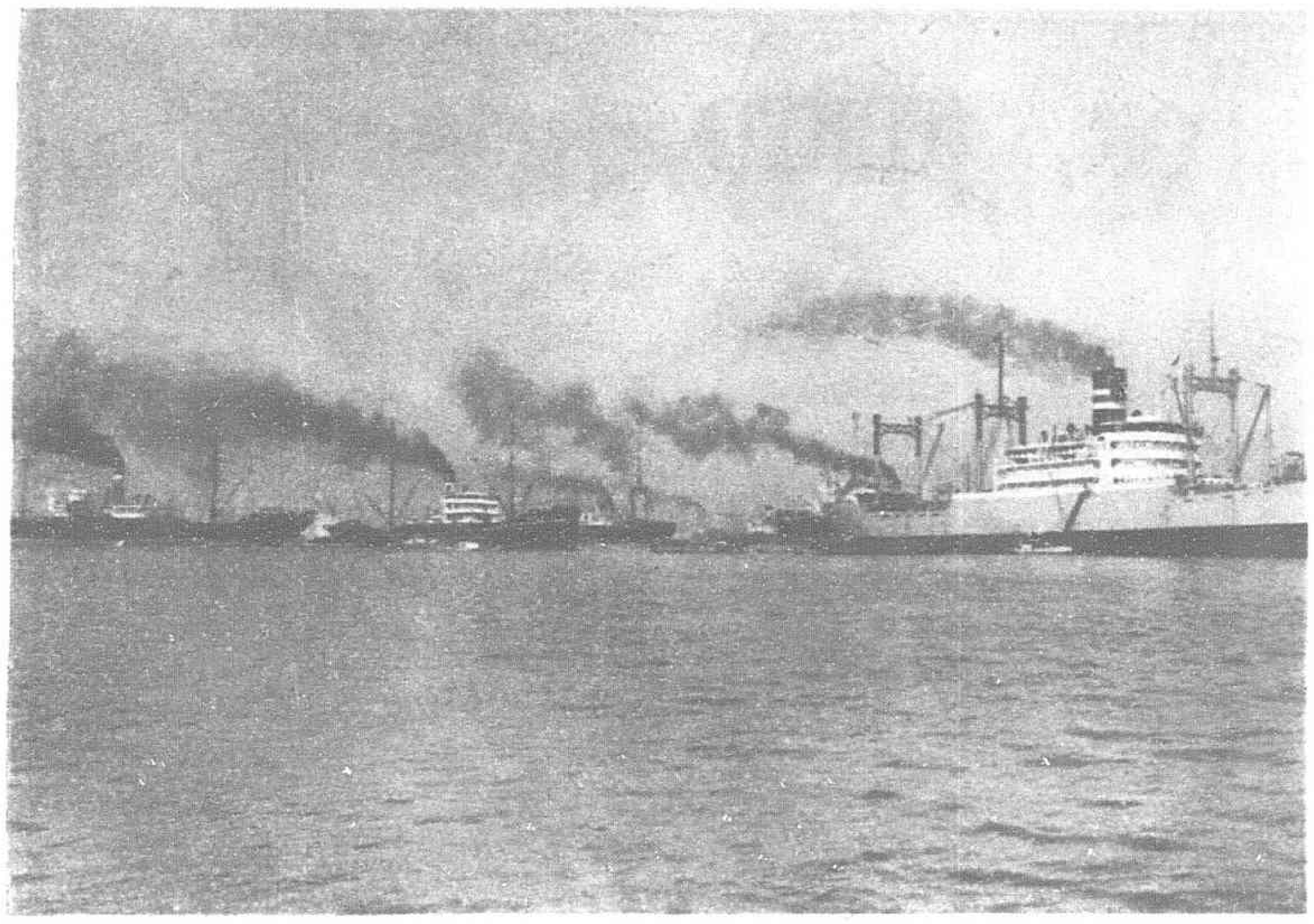
Due to the lack of adequate harbor facilities at Tokyo before 1924, shipments to the city had been made by methods inefficient for traffic economy, but when post-earthquake reconstruction began and the port's facilities were improved, freight transported directly became common practice.

The harbor basin to-day has a maximum low-tide depth of from 6.7 to 7.6 meters. Piers and quays for a score of ships of the 3,000 to 6,000-ton class have been built along the bayfront, and 21 mooring buoys placed to accommodate 24 vessels. Ten pierfront transit sheds have been constructed. About 2,700 meters of a harbor railway, including spurs, has been laid from the Shibaura wharves to the Shiodome Station. Other equipment, such as a signal station, bonded warehouses, cranes, tug boats and water mains, is provided at the docks. The combined length of the piers and quays along the first, second and third blocks of The Bund (Kaigan-dori) is 1,783 meters.

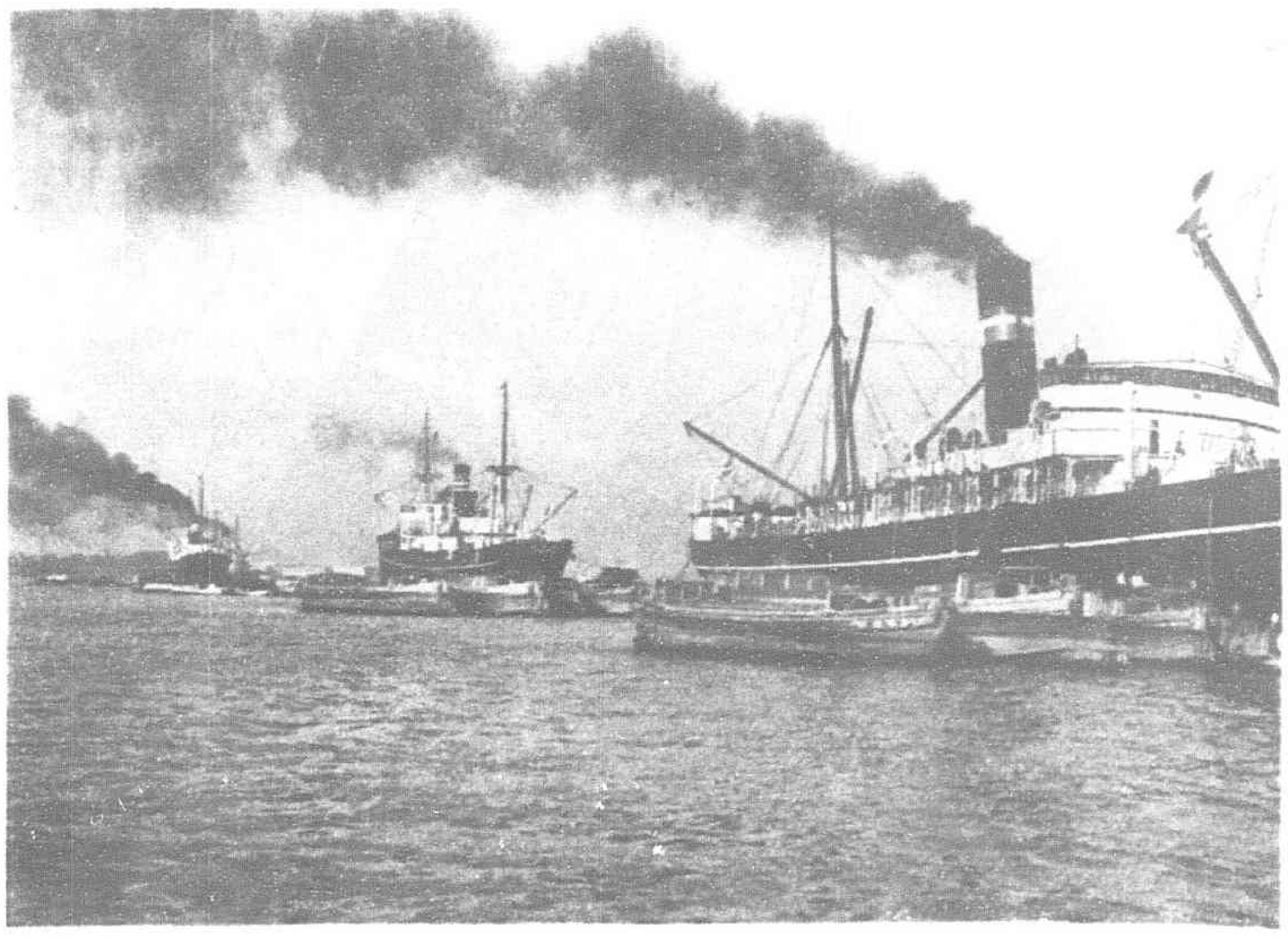
Extending about four miles in a curved line south-eastward, the ship channel, which is 145 meters wide and 6.7 meters deep at


Panorama of Tokyo's waterfront from the Shibaura docks, with St. Luke's Medical Center building seen on distant Tsukuji shore


Looking toward the Takeshiba-cho, Hinode-cho and Shibaura-cho wharves from within the Harbor of Tokyo, where anchorage is sought by an increasing number of ships



Freighters and coastwise passenger vessels at anchor in Tokyo Harbor



Cargo ships moored in the harbor at Tokyo being serviced by lighters

low tide, passes between *Daiba* No. 2 and No. 5. Both sides of the entrance to the channel are marked by a light buoy.

During the year 1938, 3,087 ships aggregating 7,950,000 gross tons and carrying a total of 7,240,000 tons of imports and exports having a combined value of approximately Y9,450,000,000 entered and cleared the port of Tokyo. Besides this, the volume of freight transhipped by lighter from Yokohama to Tokyo Harbor and from neighboring prefectures in the same year reached a total of 12,000,000 tons valued at about Y1,300,000,000.

The chief imports and exports handled at Tokyo Harbor are coal, lumber, iron, cement, rice and other cereals, sugar and fruit. Commodities from many parts of Japan, her territorial possessions and various countries, such as Kyushu, Hokkaido, Taiwan (Formosa), Chosen (Korea), Saghalin, Kwantung Province, China, French Indo-China, the Straits Settlements, the South Sea Islands, India, Australia, the United States, South America and Europe, are to-day being shipped directly to the port of Tokyo.

Not being one of the Japanese treaty ports, no ship of foreign registry is supposed to enter Tokyo Harbor. but according to the Japanese Customs Law, any vessel may enter the port after receiving special permission from the Tokyo Harbor Board. As recently as 1937, 137 vessels of foreign origin dropped anchor in Tokyo Harbor. The customs handled 680,000 tons of cargo—480,000 tons in exports and 200,000 tons in imports—having a total value of about Y134,000,000. Heading the list of imported commodities, the value of which exceeded a million yen, were gum, Southsea lumber and sugar. Exports included mineral ore, cotton goods, toys and paper. Some of Tokyo's principal raw and manufactured products show the following distribution in percentages of the total import volume :

Coal, 25 per cent ; lumber, 15 per cent; iron and steel, 12 per cent ; rice and other grain, 12 per cent ; cement, six per cent ; sugar, six per cent and paper, three per cent.

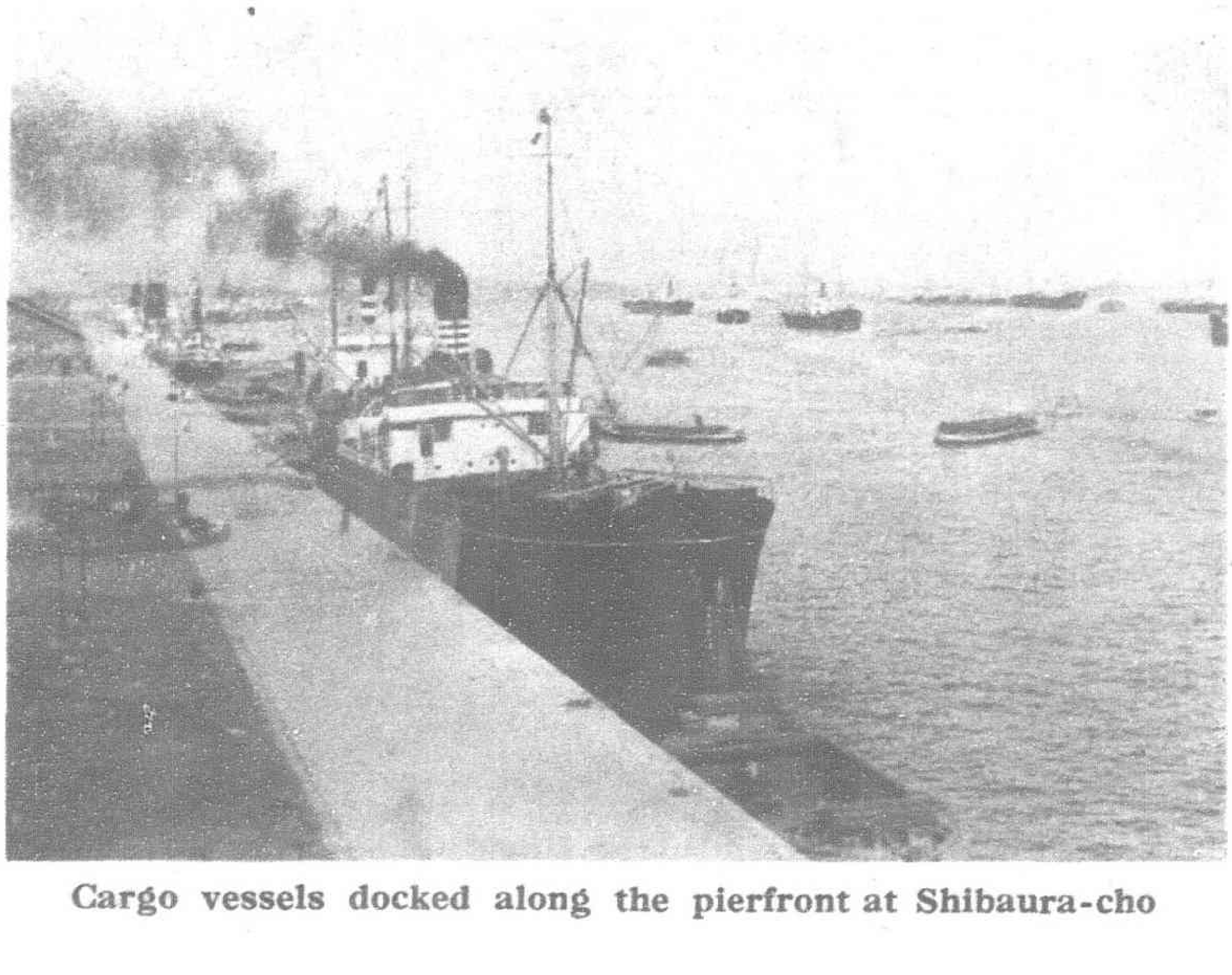
Improvement work for the harbor of Tokyo to be completed in the future consists of the following projects :

For a distance of three miles the ship channel will be redredged to a depth of 7.6 and a width of 110 meters. New jetties and quays will be constructed at Tsukishima and Fukagawa, their combined length to be about two miles. Twenty-five more mooring buoys are to be placed, bringing the total number up to 46. With these additional facilities, 80 ships in the 6,000-ton class can be accommodated in the port at the same time.

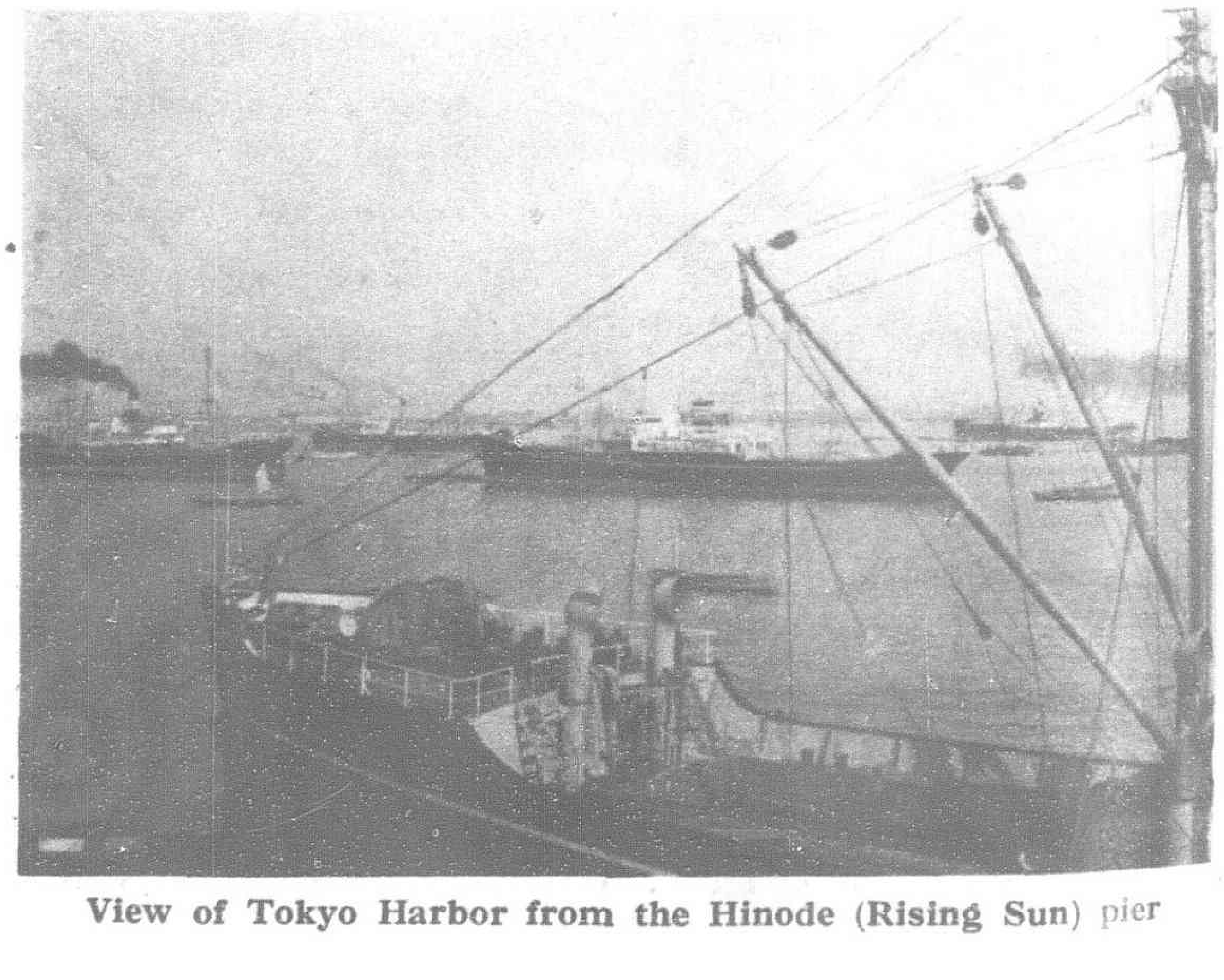
Eight new warehouses will be built along the Kaigan-dori and at the jetties at Tsukishima and Fukagawa. The harbor railway will be extended to the Kaigan-dori pierfront and to Tsukishima and Fukagawa.

Some years ago a scheme to dredge a ship canal between Tokyo and Yokohama was proposed, and after consultation with the Kanagawa Prefectural authorities, a favorable decision was reached and work started. This waterway, known as the *Keihin* Canal, will be 22,600 meters long, nine meters deep and from 600 to 700 meters wide. When it is completed, ships in the 10,000-ton class can pass along its course. The canal will not only expedite navigation between Tokyo and Yokohama but the dredged earth will be used to reclaim more tracts of land from the harbor floor. The new land areas will serve to augment the present industrial districts of the capital.

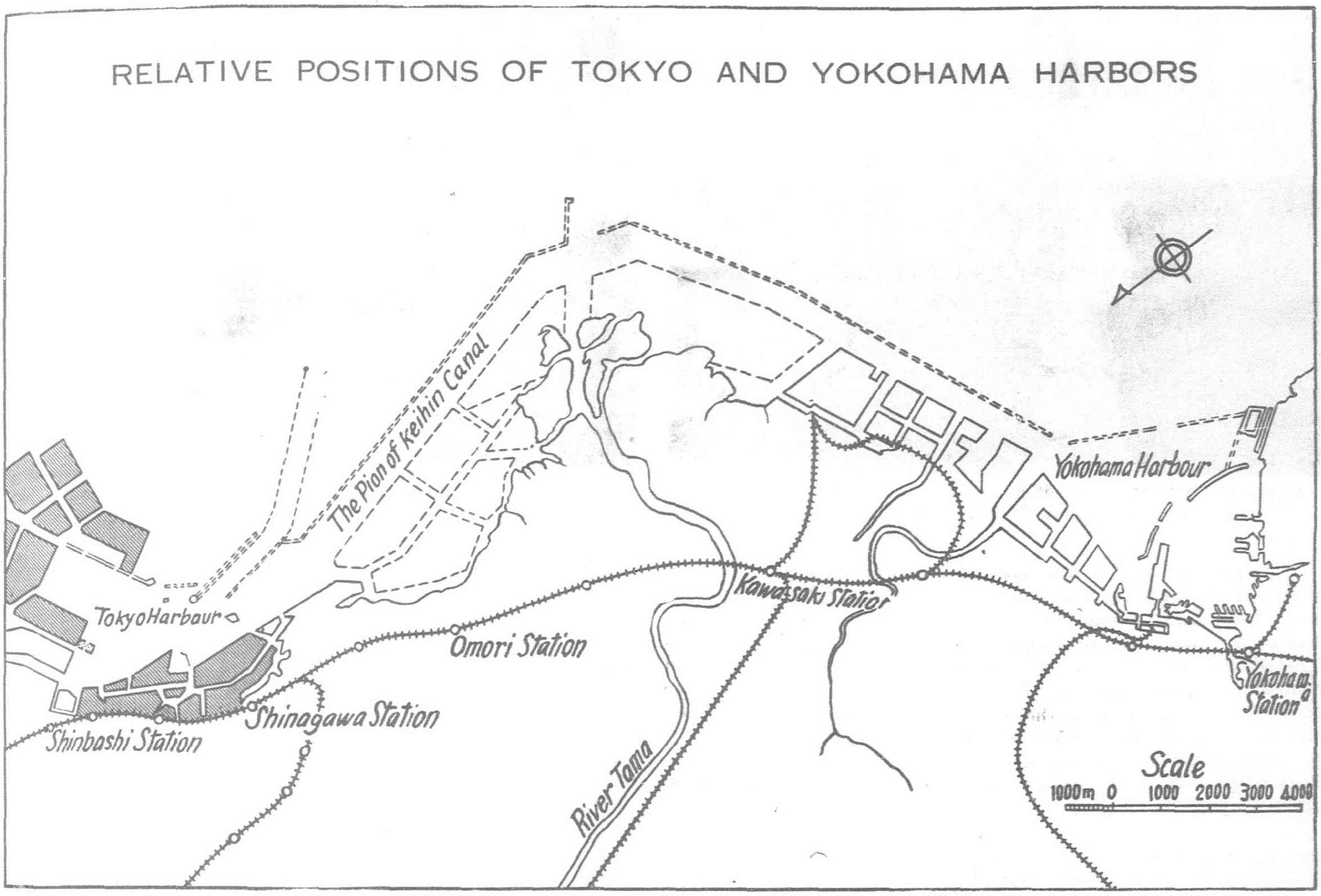
Harbor expansion will include completion of the *Kachidoki* Drawbridge (*see The Far Eastern Review* for June, 1939) a balanced lever lifting bridge built in three spans 22 meters wide, the end spans being of the tied arch type and the middle section a double-leaf bascule 44 meters long. The entire length of the structure,



Cargo vessels docked along the pierfront at Shibaura-cho



View of Tokyo Harbor from the Hinode (Rising Sun) pier

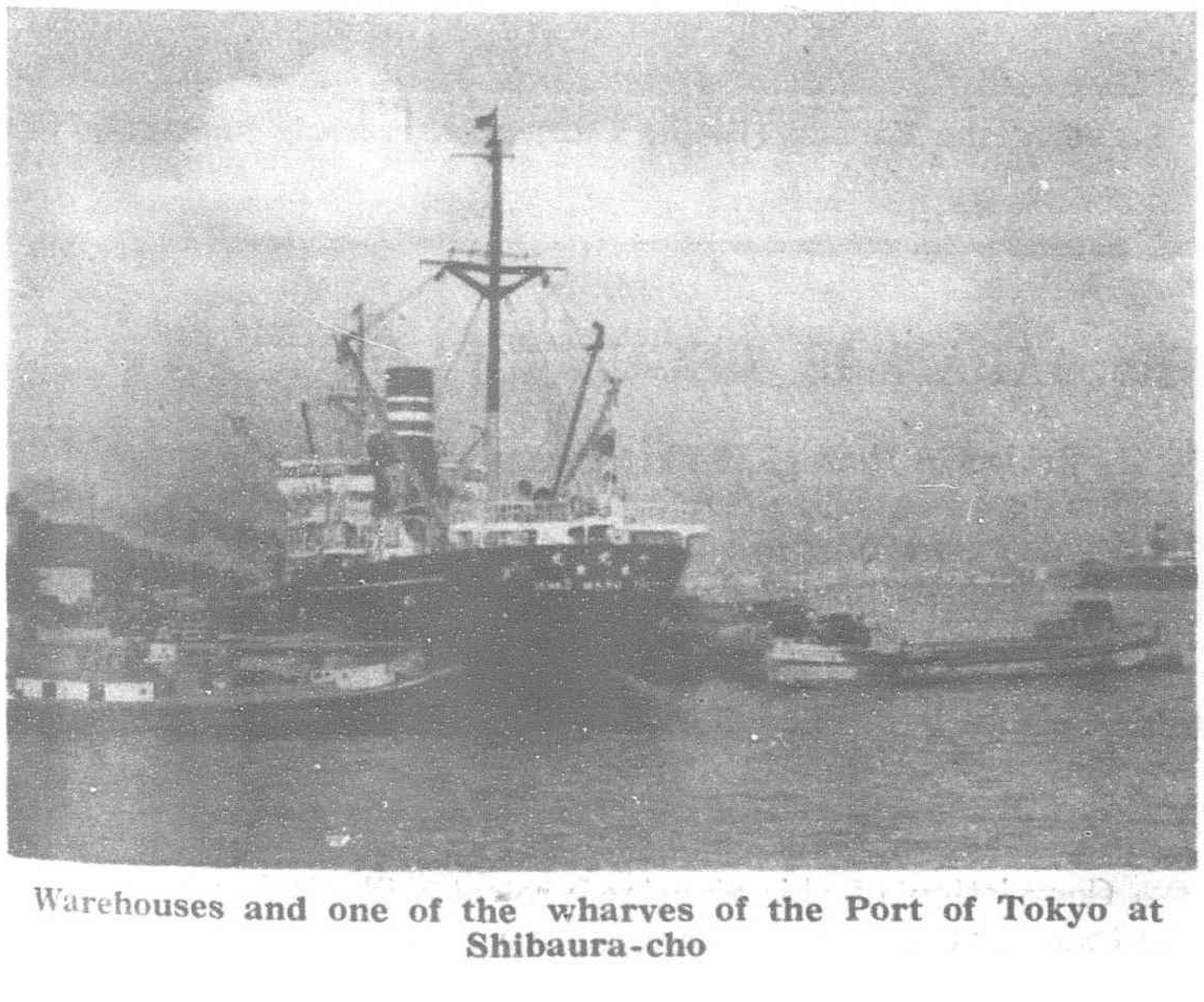


which connects Tsukishima (a reclaimed island) and Tsukiji, Kyobashi Ward, is 246 meters. The two movable leaves are operated by a pair of 125 h.p. electric motors. More than two-thirds of the bridge, which is costing the city approximately Y4,200,000, is now completed.

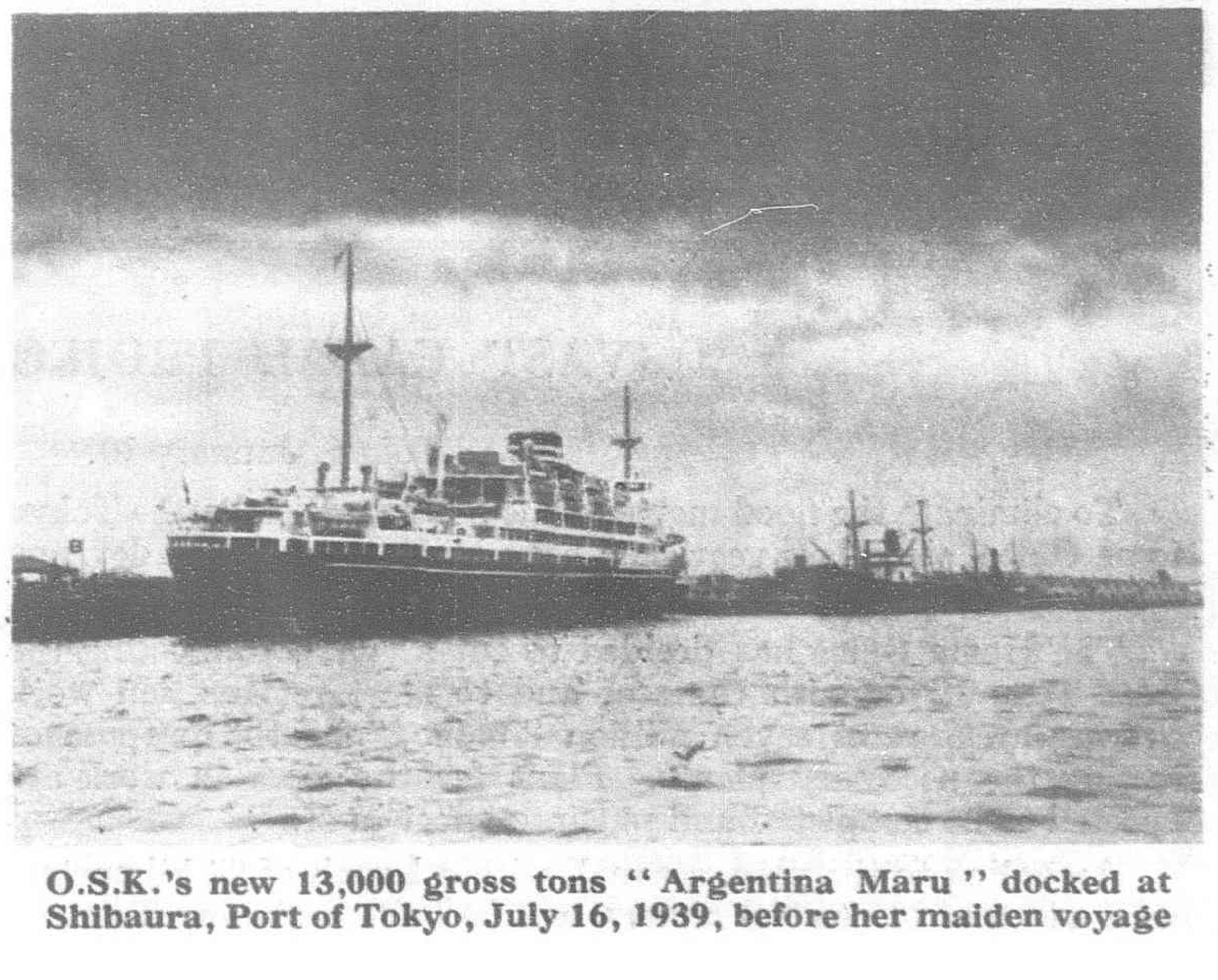
Plans for another airport for Tokyo, larger than the one at Haneda (halfway between Tokyo and Yokohama) have been approved. An outlay of ten million yen during the coming four years is estimated for this project. The new airport will be located in Joto Ward on land reclaimed from the bay.

The six *Daiba* in the harbor are scattered between Susaki and Shinagawa in two rows of three. *Daiba* Nos. 1 and 2 have an area of 33,060 sq. meters each, No. 3 has 26,448 sq. meters and Nos. 5 and six each cover an area of 19,836 sq. meters. Standing at the entrance to the harbor, the second and fifth *Daiba* are provided with lighthouses; a water police station is located on one of them. *Daiba* No. 4 went into the reclaiming of a tract of land at Shibaura. The sixth islet is preserved in its original condition as a place of historic interest, while the third islet is open to the public as a park in the bay.

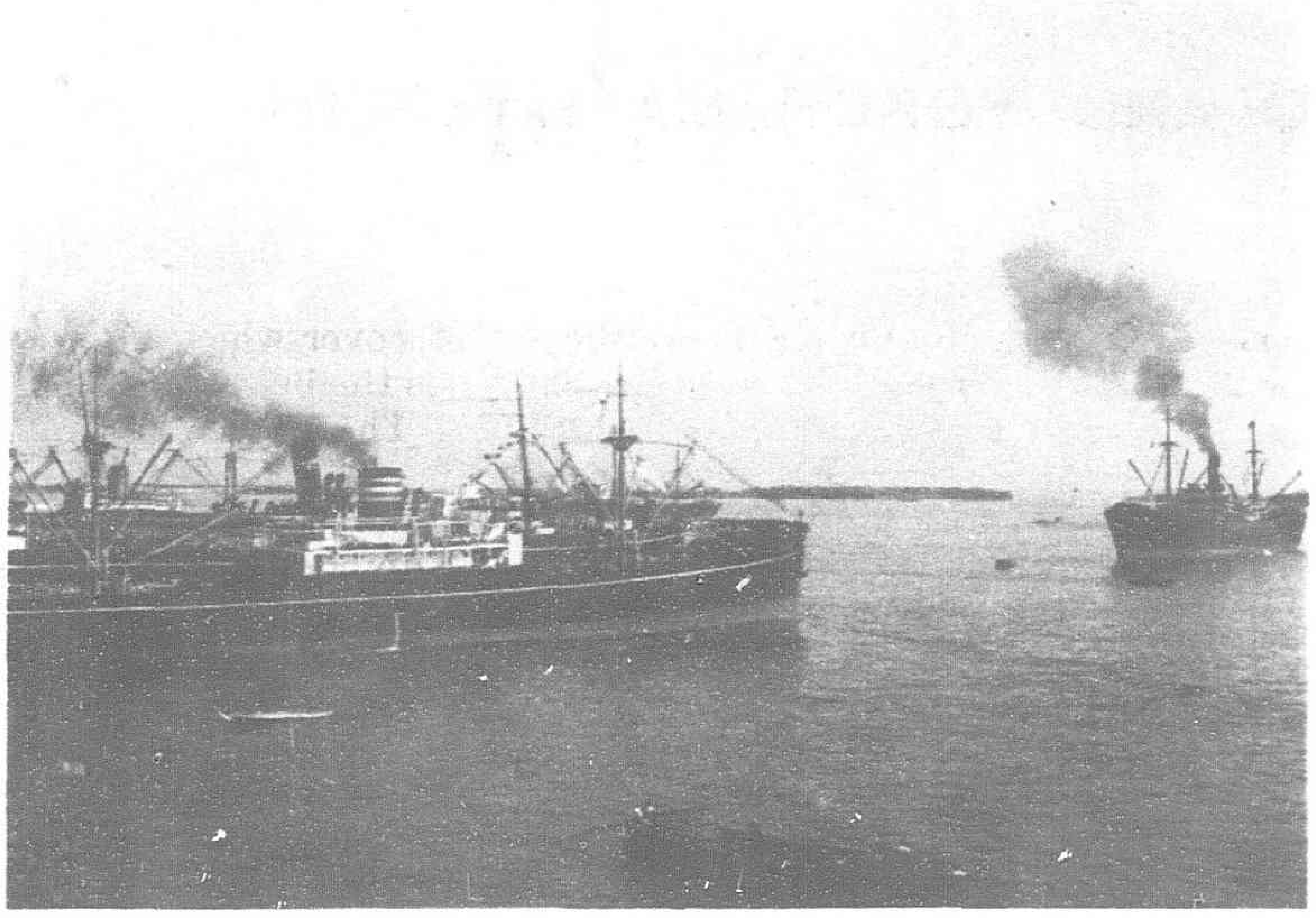
In order to protect the harbor from the open water of Tokyo Bay, a breakwater 2,386 meters in length extends between Reclaimed Land No. 6 and *Daiba* No. 3. Concrete-pile groins that lie on both sides of the ship channel are both 4,380 meters long. They serve to keep the navigation route clear of drifting sand. At the present time the anchorage is from 4.5 meters (15-ft.) to 7.6 meters (25-ft.) deep, and covers an area of 1,450,000 sq. meters within which 21 mooring buoys have been placed.



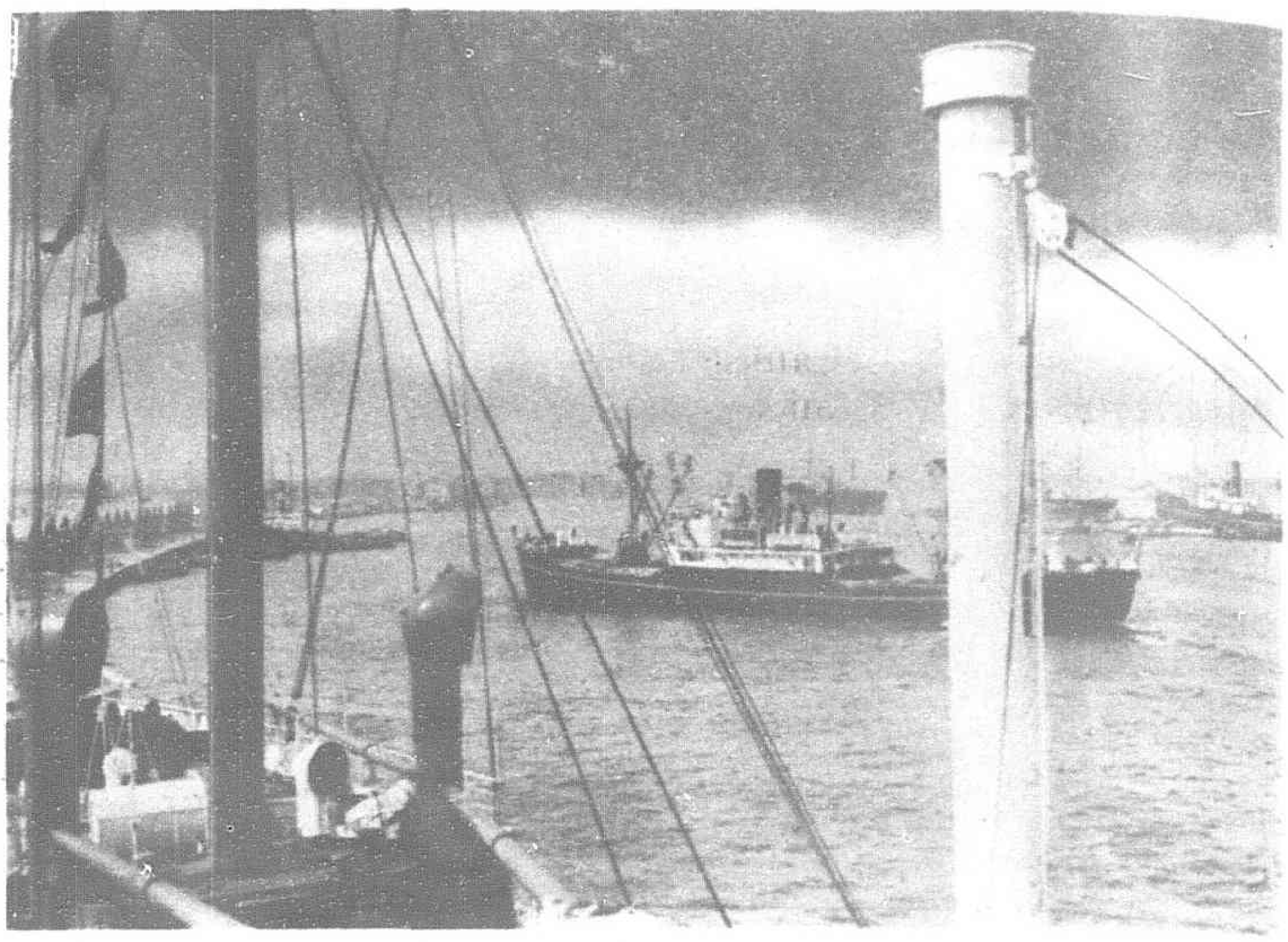
Warehouses and one of the wharves of the Port of Tokyo at Shibaura-cho



O.S.K.'s new 13,000 gross tons "Argentina Maru" docked at Shibaura, Port of Tokyo, July 16, 1939, before her maiden voyage



Daiba No. 2 in Tokyo Harbor, one of the six islet fortifications unused since feudal days, as seen from Shibaura

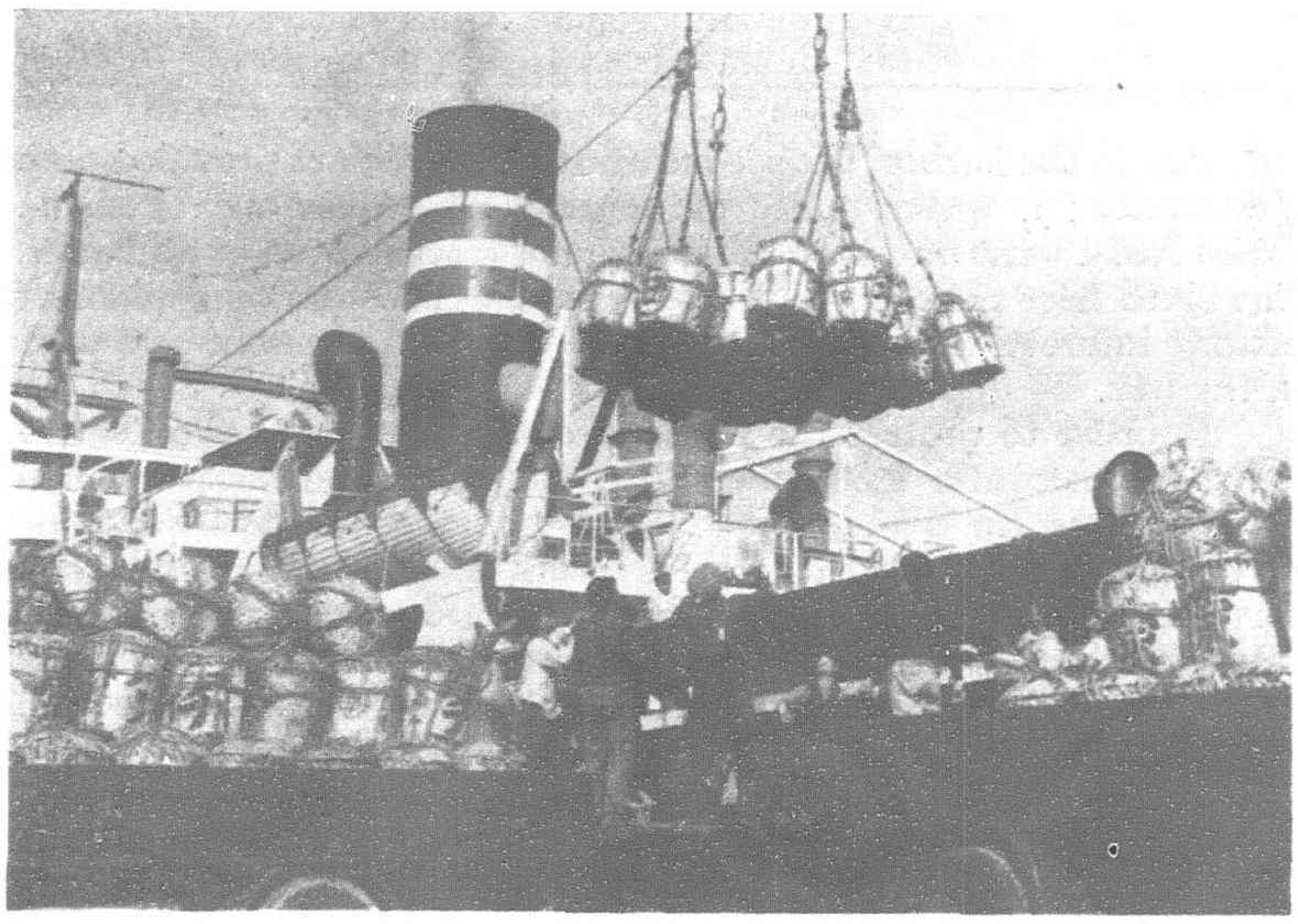


Bird's eye view of part of Port of Tokyo from Shibaura-cho

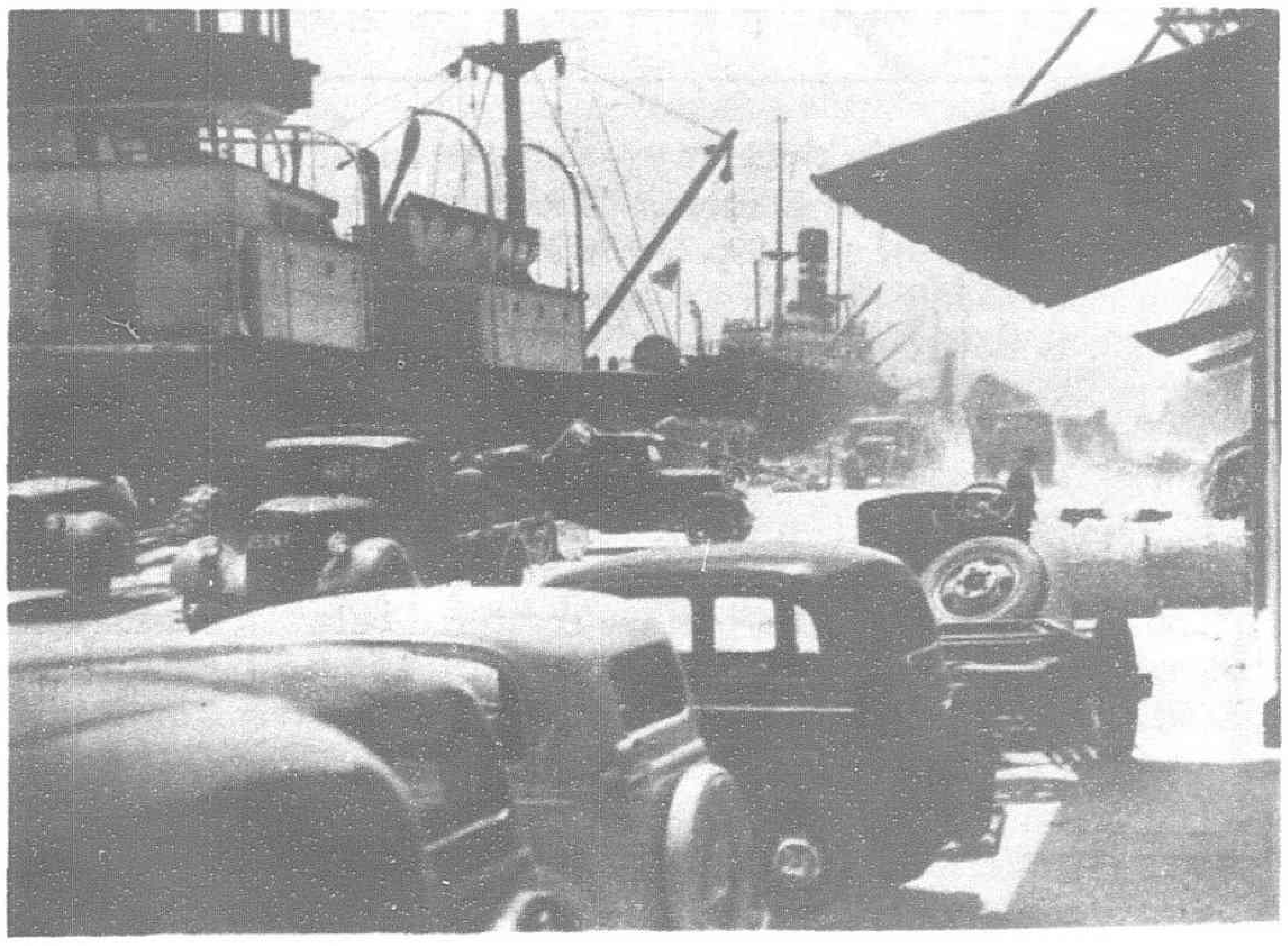
As facilities to link land and water, there are the Hinode-cho pier, 564 meters in length, and the Shibaura-cho quay, 909 meters long, both built along the Shiba Ward bayfront. The former has been in use since 1916 and the latter was completed in 1932. Transit sheds and railway yards are on the docks at Hinode-cho and Shibaura-cho, but an insufficiency in existing facilities for the port of Tokyo is obvious when it is noted that cargo handled at the Hinode-cho pier alone amounts annually to more than 2,000 tons per linear meter of wharfage, whereas the gross volume of freight from ships moored to buoys in the harbor tops 280,000 tons annually per one buoy.

To-day it is estimated that the total volume of cargo handled at the port of Tokyo has reached a new peak with the continued improvement in facilities available to take care of it. This growth has brought about a lessening of the burden on freight traffic at the Tokyo railway terminals.

Developmental work for the harbor has been carried on by the Tokyo Municipality without outside financial assistance. Part of the required construction and operating expenses are being derived from the sale of reclaimed land belonging to the city. A source of additional revenue is charges on new harbor facilities as they are provided.



A freighter being loaded at the Port of Tokyo



Scene at the Hinode (Rising Sun) pier, recently photographed

VAST CANAL PROJECT IN JAPAN IS BEGUN

Tokyo, January 10.

To eliminate the flood menace in the Kanto District the Tokyo Home Office, since last year, has been busily engaged in devising plans to prevent the Grear Tone River from overflowing its banks.

The Home Office has decided to cut a canal, connecting the Great Tone River with the sea, and to start reclamation work covering an area of seven million "tsubo," for the purpose of erecting the necessary plants. Plans for the riparian work are expected to be completed and put into effect in May.

According to the plan, a canal, with a length of 27 kilometers and a width of 140 to 300 meters, will be built beginning from the Totte Bridge in Ibaragi Prefecture and ending at the coastal town of Funabashi in Chiba Prefecture. The sand and clay obtained from this excavation will be utilized to reclaim land, covering an area of seven million "tsubo," along the coastline of Funabashi in Chiba Prefecture.

It is also planned to build a huge pier in the reclaimed area which will be large enough to accommodate vessels of 10,000 tons.

The estimated cost for this huge undertaking is Y30,000,000 and it will take fifteen years to complete. The plants to be built on the reclaimed land will be second to none.

Completion of this riparian project will mark a new era in the industrial history of the Japanese Empire.

Manchoukuo: Hunters' Paradise

By TARO ITODA

MANCHOUKUO, thanks to its network of railways, the shortest and quickest route to Europe from Asia and vice versa, lies between 38 and 53 degrees north latitude and between 115 and 135 degrees east longitude. It is one degree more southerly than the most southern tip of the European continent; yet the Manchurian climate, being continental, is very much colder and severer than that of Europe. The winter in Manchoukuo is severely cold whilst the summer is sultry and rainy, most distinctly showing great influence of the monsoon. In winter the wind generally blows from the north-west and in summer from the south-east.

The climate of the earth was far warmer, much like the present tropics, during the "pre-glacial" period but with the southerly encroachment of the glacier all was changed. All the northern parts of Asia and Europe as well as parts of North America were blanketed with ice bringing in its wake cold and extinction of all tropical life except in a few localized areas such as Transcaucasia, the Amur and Ussuri districts of Siberia, Sakhalien, Manchoukuo, Korea, the northern part of Japan and the south-eastern part of North America. That is why we in the Far East meet with an extremely interesting cross section of nature where animal and vegetable life is composed of a varigated medley of north and south forms. With regard to geography, locality and terrain, North Manchoukuo may be divided into five distinctive districts where nature shows a complete detail of richness and variety of fauna and flora. The districts or subdivisions are (1) Barga, (2) Great Hsingan range, (3) Little Hsingan range, (4) Sungari basin and (5) Kirin province.

Fur traders in Kalgan, which is a leading fur market between China and Mongolia

Barga

The territory lying between the north latitudes 47 and 54 degrees and between the east longitudes 115 and 122 is called Barga. The southern section is known as Hulungbuir, so named after the two large lakes, Dalai (originally called Hulun lake) and Buir. All this vast territory now comprises North Hsingan province. Its area is nearly 155,600 square kilometers. Barga is the far eastern tip of the high plateau of Central Asia, and lies just outside the Gobi Desert of Mongolia. For thousands of kilometers this grassy waste-land stretches away, interspersed with sand dunes and salt marshes. At some places it is strangely reminiscent of the prairies and savannas of North America and at other places the salt marshes and waste sand dunes strikingly resemble the Sahara desert of North Africa or the Gobi Desert of Outer Mongolia. Mountains, with their bare, scraggy peaks high above a sea of trees, both hardwood and softwood, are found on the eastern borders of this steppe.

The Chinese call this grassy land "sha-mao." There are scores of hills, islands in this sea of grass and salt marshes, the feet of which are covered with birch and fir and whose peaks are bare and devoid of any vegetation but whose appearance breaks the monotony of this otherwise vast and desolate steppe.

Population within this expansive prairie is sparse and comprises principally settlers, cowherds and hunters. Settlers are the Chinese, Russians and others, but excluding the Mongols, Transbaikal Buriats and Tungus. Hunters principally are the Orochons (a branch of the Tungus), Yakuts, Solons and similar nomads.

Forty-five per cent of the population of Barga is made up of nomads (1930). The nomads who are either herders or hunters are controlled in their movements by the animals over which they keep watch or which they follow in their chase, as the beasts move from place to place in search of food and water. The travelling Chinese peddlers in their turn follow for the prospect of trade in skins.

The primitive and original inhabitants of this steppe land are the Mongols and Tungus. The Mongol group comprises the Chapchins (original Buriats), The Mongol-Buriats (the new Buriats), Olots, Daurs and Transbaikal Buriats. The Tungus group is formed of Solons and Tungus, coming from Transbaikal. Orochons, though they call themselves "Honkoro," are actually a sub-family of the Solon tribe. These wander from place to place with their herds of camels, cattle and horses and flocks of sheep and goats in search of grass and water.

Of the 45 per cent nomadic population of this country, a little over 3.5 per cent comprises the hunting nomads formed by the Solons, Orochons and Yakuts. The infrequent sight of the inverted kettle-like felt yurts (tents) of these nomads enlivens this Asiatic prairie wherein still graze several thousands of Mongolian antelopes as do the hill-like burrows of millions of bobac and marmots (prairie-dogs).

During the autumn and winter seasons the Mongolians enter the grassy steppes on their shaggy little ponies headed by their fleet-footed hare-hounds and commence their seasonal roundup of wild horses or wild asses and hunting of antelopes, foxes, wolves, mountain goats, hares and others. With the same perseverance, and using falcons and eagles the Mongols go after partridges, prairie-chickens, wild turkeys, sand grouse, swans, geese, cranes, herons, ducks and not infrequently after other small animals.

On the northwestern limits of Barga are the lakes Dalai and Buir, homes during the hot summer months for geese, ducks, cranes, herons, snipes and curlews. Both lakes are extremely rich in a variety of fish and the fishing industry gives employment to hundreds of families. Almost 4,000 tons of fish were caught in the Dalai lake in the year 1927. The Harbin-Manchuli line of the State Railways cuts Barga in two from the stations Charomte to Manchuli. The former station is on the western slopes of the Great Hsingan range and the latter a few kilometers from the Manchoukuo-Soviet frontier.

Flora

The flora of this region, thanks to the exceptionally favorable climatic conditions and to its fertile virginal sub-soil, is wholly different from the rest of north Manchuria. Vegetable life as well as animal life, within this expansive terrain is much like that of Transbaikal in abundance and variety. The Argun river though forming a natural territorial limit between Manchoukuo and the Far Eastern Siberia of Soviet Russia is not wide enough to hinder the seeds of grass and plants from being carried over from one side to the other or animals to cross from Siberia to Manchoukuo and vice versa.

Generally speaking the terrain of Barga (now North Hsingan Province) falls under two classifications, mountainous and steppe.

In the eastern part of this province is the Great Hsingan range, whose massive body of rocks extends from the river Khalha in the southeastern corner of the province to the north to river Gan and from here to the extreme northern boundary of the country formed by the rivers Argun and Amur, the former to the northwest and the latter to the north. The rest of Barga, that is west from the Great Hsingan range, is steppe interspersed with sand dunes and salt marshes.

Fauna

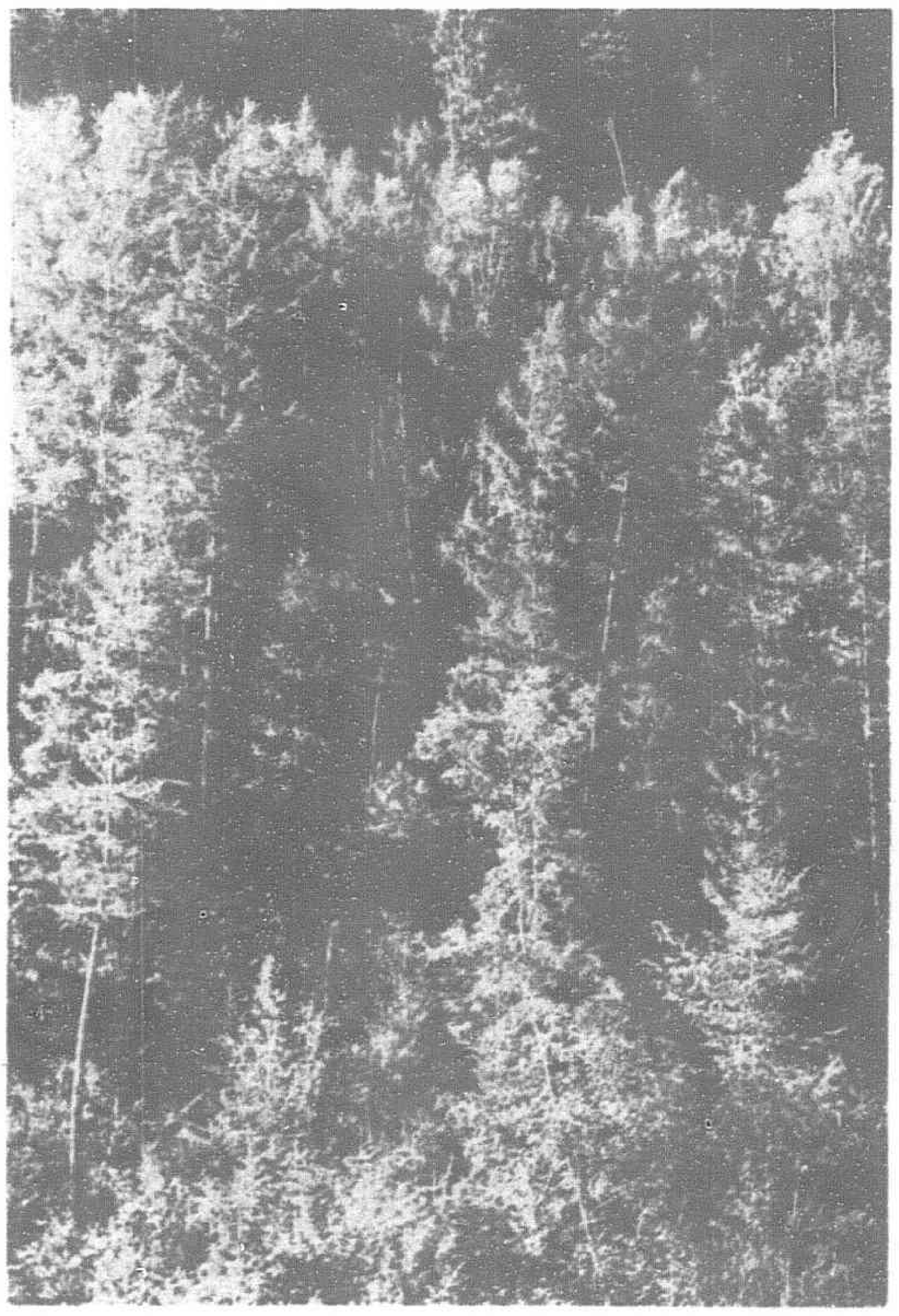
Many years ago Barga nourished an immense number and variety of animals and birds. Hunters, then did not find it at all necessary to go from their domiciles, even a short distance for meat. At present with the steady advance of civilization following the construction of railways throughout the country and the commercialized felling of trees, thus denuding the forests at the base of all hills and mountains and unattended by reforestation, the game goes farther into the depths ot the Great Hsingan Range, thus making hunting expeditions of several days' or even weeks' duration necessary.

The principal fur and skin sellers of this region are the tribal hunters and a few Russians. The tribal hunter knows the forests as well as he does his finger tips. He is born and bred in the very depths of the forest. Not only is the adult hunter thoroughly familiar with every path and nook of the woods and the habits of the animal whose tracks he is following, but even the boy of 10 to 12 is thoroughly at home in orientating his surroundings. It is quite sufficient for the parent to tell his son the spot where he left a recent kill for the lad to find it, and, if he has strength, to bring it home.

All this is very understandable ; for as soon as the boy attains the age of seven his father commences to instruct him in the art of tracking and shooting, with the squirrel as his first object lesson. He is obliged to get his game by hitting it squarely on the head, but should he either miss it or kill it by hitting it somewhere else than the head, his father gives him such a trashing that the boy will not easily repeat his carelessness in aiming. This "schooling" lasts for about three years and the boy as he attains the age of ten is supposed to have fully mastered all the intricacies of hunting and tracking game, as well as the woodman's craft ; the knowledge of all of which will play a major rôle in his future life.

The average tribal hunter in the course of one year usually bags three large animals, as elk, ten smaller ones, as fox, and 200 squirrels.

The nomadic hunters, Orochons and Yakuts, are always on the trek as their movements are wholly controlled by the game they follow. The Orochon follows the game on horseback and the Yakut on reindeer (elk) and their families with all their worldly possessions come afoot.



Behind Keizanchen is the vast Boshizan forest, embracing 2,400,000 "Cho" of land containing about a billion feet of pine trees that shed their fronds in winter. For centuries this was a royal game preserve

The furs gained by these nomads are sold to fur-buyers through intermediaries at same agreed place ; in the northern part of Barga such places where takes place the transfer or barter of skins for living necessities for the nomads is called "Baljori." In the central and southern parts of Barga the skins are sold directly to either Chinese or Daur fur buyers who in turn sell to agents of foreign firms located both at Hailar and Manchuli railway towns or export directly (in the case of Chinese) to their main offices in China or in south Manchuria.

The irrational killing of valuable fur-bearing animals has wrought havoc with the wild game of the country and in consequence the fur export trade is lessening from year to year. Some 20 years ago the yearly quantity of sable furs brought into the market reached the huge total of 10,000 pelts whereas at present if some 200 pelts are brought into the market the year is rated as above average. These figures apply to the Sansin district but this applies equally to all the rest of the country.

The Great Hsingan Range

The eastern boundary of Barga from the Amur river on the north to the Great Wall of China in the south is formed by the long chain of mountains called the Great Hsingan range. This range with its thousands of spurs on the eastern and western slopes occupies an immense area of terrain and in its natural characteristics there is a great deal of similarity with those of Transbaikal and the northern part of Amur district. The highest peak of the Great Hsingan range reaches 2,000 meters in height and the entire range is thickly wooded with such species as birch, fir, oak and other evergreens.

In the southeastern part of the range one meets with the sights of real typical Manchurian flora and fauna. This region is desert-like and is almost uninhabited except for a few nomadic huntsmen and their families—mostly Solons and Orochons—whose hunting methods are of the most primitive type and yet inferior to none in results they kill their game only to satisfy their most immediate need ; meat for nourishment and skins for clothing and tent making.

Among the bigger animals to be found in the Great Hsingan are the bear, boar, elk, lynx, Mongolian antelope, mountain goat, musk deer, roebuck and wolf. Of the smaller animals, there are the badger, fox, raccoon-like fox, marten, otter, polecat, squirrel and wolverene. Of the feathered inhabitants of this range are the usual birds of prey as well as the game birds, such as the grouse, heath-cock, woodcock, woodhen and pheasant ; while at the bases of the hills, ravines and copses of the eastern spurs of the range there are also the pheasant, partridge and quail.

Anglers will find their paradise, fishing in the mountain streams and rivers of the eastern side of the Great Hsingan where there is an abundance and variety of fish. Amongst the game fish mention might be made of mountain trout, Siberian salmon and salmo thymallus (Russians call it "tai-min").

The same line of the State railways that crosses the Barga plain also cuts the Great Hsingan range from south-east to north-west between the stations Charomte and Ghinhiskhan and near Hsingan station there is a tunnel cutting the very spinal column of the range.

The Little Hsingan Range

The Little Hsingan range occupies an immense tract of land of a triangular form bordered as it is by three rivers, Amur on the east, Sungari on the south and Hulan on the west and north. Due to the great distance from the railway line this terrain is except for the occasional and rare visits paid by the hunter practically uninvestigated. Some of the peaks of this range attain the height of 1,500 meters and the entire range together with its innumerable spurs is covered with prodigious virgin forests within which are to be found the wild vines of the Amur and the Manchurian cedars.

Of the big game animal habitues of this range are, besides those of the Great Hsingan range, the tiger, leopard, the Himalayan black bear, the red wolf, mountain goat, and wild cat ; while the squirrel, fox, and sable are principal among the small game. This terrain is sparsely populated and what few villages there are situated on the very fringe of the mountains and also only on the southern slopes.

The Golds, the Tungus, both among the aboriginal tribes of Manchuria, and a few Manchus are the only hunters inhabiting this range. The Golds in winter wander over this terrain in their dog-drawn Kamtchadal sledges.

Here on the northern slopes is to be found the most sought-for ginseng, the root of which is highly prized in Chinese and Tibetan pharmacopœia, as well as cedar and other representative forms of typical Manchurian flora.

The Sungari Valley

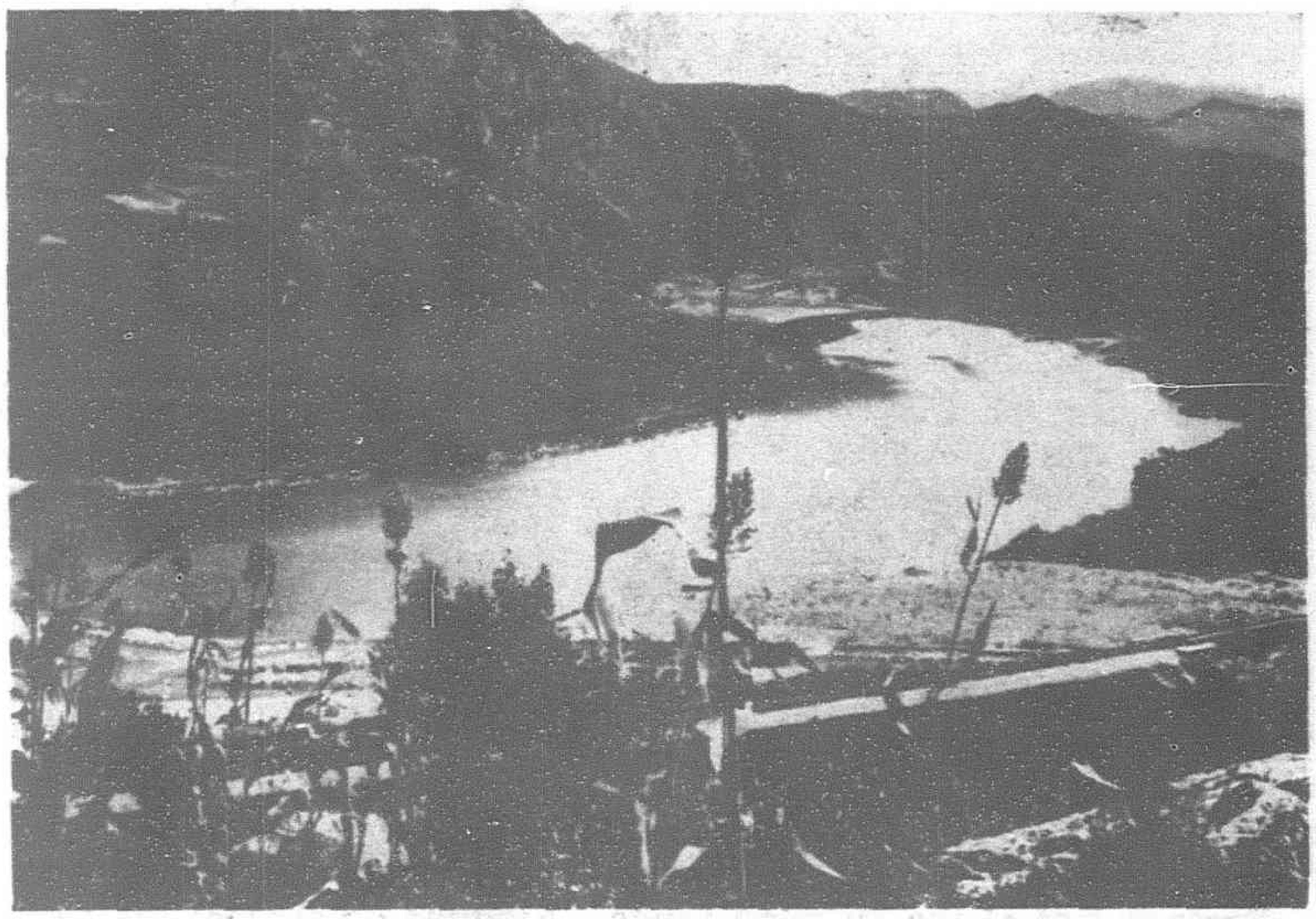
The Sungari river, watering a wide fertile valley in its middle and lower reaches, plays a very important rôle as one of the most important arteries of this northern district. This basin in its production of wheat has no equal throughout the Far East.

About 25 years ago practically the entire Sungari basin was an uninhabited territory of wide spacious grassy steppe, meadows and swampy ravines overgrown with broom, sedge and sanguisorba and now this wilderness of black fertile soil has been almost entirely brought under cultivation. Village after village has sprung up like mushrooms but mostly confined to the river banks.

Bird life in this basin is sufficiently diverse and in great abundance and the species are mostly migratory; accomplishing their periodical flights to the warm south in the autumn and returning to their habitual nesting grounds in the north each spring, when geese, ducks, curlews, cranes, herons and snipe cover the whole country side. In these two short seasons the hunter goes out and enjoys shooting the birds to his heart's content whilst the poor native, though devoid of firearms, not to be outdone by his white cousin in bagging the feathered invaders, is not slow in " shooting ' the birds by sprinkling the fields with alcohol or native wine-soaked grains which the hungry birds gobble down and become drunk and so are easy prey to the native huntsman with his net and stick.

This seemingly limitless valley now covered with millet, soyabeans, kaoliang and maize gives the pheasant a splendid breeding place in all the copses bordering the banks of the streams, as well as in the marshes; and here also may be found hares and wild goats, with occasional but rare visits of wolves.

The rivers Sungari and Nonni are exceptionally rich in fish, both as to content and variety. The inhabitants living near or along the banks of these rivers go in for commercial fishing and for the primitive tribes of Golds, a sub-family of the Tungus, aborigines of Manchuria, domiciled along the banks of the lower reaches of the Sungari, fishing is the only means of sustenance. The following varieties of fish are caught for commercial purposes: sturgeon, carp, salmon, pike, eel-pout, guiniad, perch, silurus, crucian-carp and bream. In the Sungari River there is a specimen of the Tryonix, soft-shelled turtle, which is a rapacious and ferocious reptile and attains sometimes a size weighing 25 kilograms.



" Anglers " hill (Tiaoyutai), is some three miles south of Chiatou

Of the water plants growing in this basin the most interesting is the gigantic "nenupla" (water-lily), a genus of the world-famous "Victoria Regina" of the Orinoco and Amazon rivers.

Of the mammalia inhabiting this valley mention might be made of the hare, the Siberian marmot mole, fox, and badger.

The city of Harbin is situated in the central course of this river basin and the bridges of Harbin-Manchuli and Harbin-Peian lines of the State Railways cross the river, the former in the northern section of the town and the latter a little east of the city.

The Kirin District

To the east of the Sungari valley is Kirin Province whose northern plain stretches from the Sungari river to the spurs of the highest mountain range within the state of Manchoukuo, the Chang-pai-shan, to the south and east of the province which also forms the frontier barrier between Manchoukuo and Korea. This mountainous mass of rocks, lifting its scores of peaks to an average height of 2,000 meters, is covered with gigantic primordial forests inhabited only by wild denizens of the mountains. The highest peak of the entire range is the Pai-tou-shan which reaches a height of more than 3,000 meters. It appears that this peak is the extinct volcanic cone whose apparently bottomless cavity has been filled by nature with water and is the head of three of the largest rivers in North Manchuria: the Sungari, the Tumen and the Yalu. The latter two rivers form natural frontier barriers, the Tumen dividing Manchoukuo from Korea and Soviet Siberia and the Yalu from Korea.

The mountain, Chang-pai-shan, the real backbone of the entire mountain system of Kirin province, stretches northward in the form of a hand covering practically the entire northeastern corner of Kirin province, its grasping fingers only stopped by the rivers Sungari and Ussuri and the Hanka lake. The Lao-erh-lin spur runs westward between the river Mutankiang and Sungari. The Ken-tai-alin spur in the center lies between the Mutankiang and Suifenho rivers and the Ta-ping-lin spur divides the Muren from the Suifenho.

The Harbin-Suifenho railway line crosses this Province from Ertsientientze to Suifenho, from the north-west to the south-east and in this stretch there are three railway switchback mountain passes, namely at Gao-lin-za, Dai-ma-gou and Tai-pin-lin. All these three railway passes are situated at the modest height of 1,500 meters and other peaks in the immediate neighborhood attain the height of over 2,000 meters and in some places assume characteristic alpine profile with massive stony declivities.

With the exception of the river valleys at their bases, these mountains are all covered with gigantic primordial forests and with innumerable variety of vegetable life, all typical of Manchuria flora. Some of the trees to be found in these virgin forests are the stout cedar reaching well over 100 feet in height, poplar, walnut, ash, spruce, silver fir, black birch, linden and yew, to mention only a few of the more important all giving these luxurious forests a distinct southerly atmosphere, especially in those places where the thickness of the growth of the woods and the denseness of the under growth have made it impossible to cut pathways, complicated by entangled growth of wild vines. All this combines to make these forests most difficult of human penetration, as if to declare that nature had specially intended these forests as an everlasting refuge for the wild animals and birds, the only inhabitants thereof.

Every spring and summer this natural carpet of every shade of green, studded with flowers of every imaginable color and shape fill the air with an almost suffocating sweet fragrance, whilst in autumn this forest land puts on a Jacob's coat of many colors as the leaves change their sober green into every tint and shade.

These forests stretch almost from the Sungari banks right up to the Korean border on the other side of the mountain range and the natives of Manchuria give this extensive area of woods the name " Shu-hai " (tree-sea) or " Da-shu-lin " (great woods).

Here grows native the famous ginseng, the roots of which are very highly prized throughout the Far East. This plant, a species of the aralia plant, is found to be growing only in the very depths of the forests, and only in the immediate neighborhood of cedars and then rarely. The roots of this plant form one of the principal ingredients of all Chinese and Tibetan pharmacopœia and the successful cure of chronic diseases through prescribing this plant is frequently claimed by the Chinese. Very aged roots of this plant fetch as high as Y5,000 each.

Because of the extremely large demand for this root, resulting from the high medicinal value placed on it and because of the very high price paid for it, to-day there are hundreds of plantations specially given to cultivating a domesticated variety of the ginseng. The domesticated article does not possess such high medicinal value as its original wild brother according to the Tibetan pharmacopœia, yet it, too, fetches a fair market price.

Fauna within this extensive Manchoukuo sea of forest is equally as rich in variety and quantity as flora.

The cedar and oak woods are the principal habitat for numberless wild boar who find in these woods their main means of sustenance, the nuts and acorns. The leopard is frequently to be met with along the rocky ridges far above the forest belt where it preys on musk and mountain goat, whilst on the lower fringes of the forest and copses roe, spotted stag and wild goats make their homes.

In the denser parts of the forest the sable preys on the squirrel and who in turn preys on the marten, while the woodcock and woodhen have as their enemy the lynx. The sweet-toothed black Himalayan bear besides subsisting on nuts frequently goes hunting for honey and not infrequently follows its scent for miles away from his home, to descend upon some apiary and end in causing a great loss to the native apiarist; and like his nearest relatives, the fawn-colored and the Kamchatka bears, he lives in autumn principally on wild grapes, acorns and other nuts.

In winter when the nights are extremely severe the red wolves howl incessantly and the horned coot not to be outdone plays second string. The hare and the pheasant make their home on the edges of the woods, in copses and dales for more security yet they too have their perpetual hunter, the fox.

The wild Manchurian forests are gloomy and soundless, except for the occasional tapping of the black woodpecker or its multi-colored cousin and the bugle-like call of the golden oriole. On the obscure foot-path in the dark dale may be seen a trapper returning to his secretive hut half buried in the ground, after a day's work. Such is primitive life in the forests of the eastern part of Manchuria.

The lord of this vast forest and these immense mountains is the tiger, before whom all the rest of the inhabitants of the wilds fear and tremble. In several of the mountain passes the Chinese have erected temples in honor of this ferocious lord of the forests and even offerings in the form of diverse food are frequently given by the natives in these temples to these murderers of the wilds. This villain of the woods is further honored by being taken as a talisman by millions of the natives, by whom godly reverence is paid.

Eastern foot of the Hsingan range. Striking differences are to be found between the eastern and western sides of the range

According to the Chinese superstition it is said that there are a few tigers on whose head the black bar-marks form the Chinese characters 王大 (Wang Ta) signifying "Chieftain" and these kings of terror are said to possess supernatural powers and are accordingly held in awe by even their cousins, the unmarked tiger. According to the same native belief the Chieftain tiger is so feared by the rest of the wild animal family that they all do their very best never to cross his path and while his wisdom is frequently claimed to be equal to human. He is supposed to be the actual guardian of the highly prized ginseng and all those seekers of this plant try to obtain, according to their native superstitions, the good graces of this ferocious murderer of forest and mountain by placating him with offerings according to their means.

Chinese pharmacopœia also places a high value on the tiger and therefore every part of this animal brings a good market price; its bones, blood, fat, brain, heart, whiskers and claws. The carcass of a tiger is valued according to its weight. The average price ranges from Y100 to Y200 for 16 kilograms, according to sex and age.

Notwithstanding the severity of the climate, there are many snakes in these mountains and forests. Amongst the reptile family there is a particularly interesting specimen of the striped snake native to the Armur district, which attains a length of 2.5 meters and is extremely poisonous. There is another of the rattle-snake family.

Insect life in the Kirin forests is particularly varied and abundant. Especially at the end of the summer season is the profusion of insect life felt, when myriads of "snuffers" appear—the gadfly, horse-fly, the common fly, the gnat and the mosquito giving peace and rest to neither man nor beast in the open.

On dark, moonless nights the Kirin forests present an eerie spectacle when millions of fire-flies flutter in all directions illuminating with phosphorescent light the inky blackness. On such nights the screech of the Japanese goat-sucker is heard everywhere.

The sunny, foothill coppices and the tree-lined river valleys reverberate with the calls and songs of hundreds of thousands of smaller birds. Here one may hear the joyous call of the familiar cuckoo, the melancholy wail of the hoopoe, the brave call of the oriole, the whistle of the golden-headed wood-pecker, the trill of the red-wing, the beautiful linnet and others. The paradise gnat-snapper, the red tropical kingfisher and the blue magpie all combine to beautify with their bright plumage the shrubs and dwarfed oak groves of the sunny southerly sides of the hills.

The eastern part of Manchuria is clearly wealthier in the matter of flora and fauna than the rest of the northern part of the country. Here we not only find specimens of flora and fauna of the bleak north and of the warm south but even those of the tropics; in the forests of Kirin province we have representatives from India, Indo-China and evergreen Japan.

The prodigious forests of Manchoukuo are settled only on their fringes and yet the few years since the commencement in 1900 of commercial exploitation under the Chinese Eastern Railways have seen the total disappearance of more than 20 per cent of Manchoukuo's forests, and this most irrationally and criminally. Because of this criminal destruction and unplanned deforestation according to those who have or had timber concessions, all such ancient and valuable trees as the cedar have virtually disappeared. As if such irrational felling of trees were not enough another and more deadly element in the form of forest fires has appeared, which destroys not only the full grown trees but also makes reforestation impossible, thus depriving the country of one of its largest and most easily natural resources.

Hunting

The wealth and variety of wild life in Manchuria conspire to create the greatest possible interest in hunting, which is consequently established on an extensive commercial basis. Moreover, commercial fur farms for the raising of such valuable fur bearing animals as, fox, elk and spotted stag are numerous.

Zoographically Manchuria is wonderfully blessed, this country being the converging point of three totally different zones:—the steppes of Central Asian plateau, Siberian forest zone and the subtropical zone of evergreen Japan and hot coastal area of Indo-China. We find in this country three totally different topographical terrains: the steppes on the north, the vast forests and the three great mountain ranges with their tops high above the sea of forests. We have within our easy reach a hunting Eldorado, possessing every kind of game to satisfy the entire gamut of hunting desire and taste, from big game hunting to small bird shooting.

Hunting and fur trading have both played important rôles in the commercial development of Manchuria from time immemorial and as late as the closing years of the last century provided the only means of sustenance for over 90 per cent, of the inhabitants of that area, excepting the nomads and tribal races of the far north.

With the gradual advance of civilization into the wilderness following the construction of the railways, hunting dwindled to its present insignificance, though still important and the game is gradually being pushed farther north or into the very depths of the Kirin forests. Nonetheless the industry still plays an important part in the economical well-being of the country. Almost 2,500,000 pelts of 30 different species were exported to foreign countries during the 1931-1932 hunting season bringing almost six million yuan in revenue (Jubilee Collection, 1932).

Hunting for meat and fur still forms one of the principal means of living for the Orochons and Solons of the Great Hsingan and Barga districts and of the Golds, a sub-family of the Tungus, inhabiting the lower reaches of the Sungari and the Little Hsingan range and a part of the Kirin forests, Chinese, Manchus and Koreans of Kirin Province were the first and only professional hunters of this country until the advent of the Russian marksmen who came into this country with the start of the construction of the former

Chinese Eastern railway; these late-comers being better armed, bolder and more expert soon ousted the primitive natives yet the Russians never went any great distance from the railways due to the total absence of ordinary comforts of the simplest kind, also due to certain restrictions placed on travel by foreigners outside the treaty places, and what was worst of all, the instability and rampancy of bandits then prevailing, especially in the Kirin forests.

According to official statistics (1934), both hunting and trapping in this country gives employment to some 40,000 souls and the annual turnover of the trade is approximately 20 million yuan, the net income of each person engaged averaging 500 yuan a year. These figures most eloquently speak of the great importance a well rationalized hunting industry would have on the economic life of the State.

Unfortunately for this very important industry, it has not been given the attention it deserves, with the result that the above return is less than half of what it was in the first decade of the present century. For this state of affairs, the blame must be laid to irrational killing of the game as well as to equally thoughtless felling of trees unattended by no attempts at reforestation (At present there is in Manchuria a hunting law which prescribes a closed and an open season for game, also a law for reforestation. All such primitive methods of trapping as pits dug in the ground, baiting either with poison or dynamite, are absolutely prohibited by the Government, as is also the reckless killing of the game for the mere sake of killing).

Methods of Hunting

The following methods of hunting were in vogue prior to the promulgation of the Hunting Laws of Manchoukuo a few years ago, while a few of these ancient methods are still permitted.

The increase in the values of fur on world markets in the last few years created an army of murderous hunters armed with dynamite and strychnine. This army sallies forth into the steppes and forests to scatter all over the country their dangerous implements which slaughter all species of animals, both valuable and worthless, threatening extinction. With the exception of a mere 20 to 30 per cent of all animals so killed which fall into the hands of the hunters, the rest are a total loss, and their poisoned carcasses, devoured by other beasts create a wanton destruction of animal life. Besides, the fur of strychnine-poisoned animals possesses almost no commercial value due to the simple reason that the fur falls off the skin as the result of the chemical reaction of the poison.

(1) Going after the game on horse-back, with a pack of dogs: This method is practiced by the Mongols, Orochons, Solons and other nomads of the north.

(2) Trapping fur-bearing animals: This method is practiced by Chinese, Koreans, Manchus and a few Russians.

(3) Catching animals for their meat in trapholes: This is the favorite method of the Chinese and Manchus.

(4) Use of dynamited bait: This savage practice is followed by Chinese and Koreans.

(5) Use of poisoned bait: This is practiced by Chinese and Russians.

(6) Snaring small birds with nets and nooses: This is another favorite method principally employed by the Chinese.

(7) Hunting with oversized cross-bows attached to tree trunks the bows being set off by the victim. This method is practiced by the Chinese only.

(8) Hunting game with firearms: This system is practiced by Russians and Manchus and a few Chinese professionals.

(9) Using falcons for game-birds: This method is a favorite sport of the Mongols, Manchus and Chinese.

(10) Hunting birds with firearms, this is practiced by Russians and a very small section of the Chinese huntsmen.

(11) Hunting the smaller animals with the trained, common eagle: This primitive method is practiced by the Mongols only.

Each of the above methods has its own individual merits and its use is influenced by the season, weather, nature of the terrain, nature of the game sought, qualifications of the hunter, the condition and quality of the firearms, the number and ability of the dogs and numerous other factors too numerous to mention.

Fur-bearing animals are sought with all manner of traps by Manchus and Chinese and practically never with firearms.

The Mongols use a kind of trap which they call "dui." This trap is constructed with the aid of two tree trunks, one dead and the other healthy and springy. The dead trunk forms the lower beam of the trap, with the heavy healthy one placed on it at an angle of 30 to 40 degrees, while the bait is so placed within the trap that the animal will cause the heavy up-right to fall across its nape, thus killing itself. Another primitive method frequently employed is the running noose. This is placed in the animal's path well concealed with twigs and leaves with one end securely fastened to a nearby tree.

For trapping the animals used for meat such as roe-buck, wild goat or boar, the Chinese build an extended corral-like abattis or a blind alley at the end of the woods. This alley extends from 10 to 25 kilometers in length and all along the path of and leading to this fence pits are dug and covered with small twigs and branches spread over with leaves. The animal is hounded towards this enclosure and fleeing from his pursuers falls into one of the pits. This method is extensively used by the natives yet a number of animals so caught manage to extricate themselves and flee, only to fall easy prey in their weakened state to other stronger animals. Chinese call this method of trapping "lu-da-wei."

The legal hunting season runs from September to the middle of March. Hunting with firearms for big game is pursued with or without the aid of dogs. However to go after big and dangerous game it is vital that the hunter possess experience, endurance and presence of mind, for without these resources he will be lucky if he returns alive, though with empty bag, after having shot at his tiger or what not. If luck is not with him, he will have fallen victim to his quarry. All big game hunting in Manchoukuo is dangerous even for the experienced hunter because of the extreme wildness of the forests and the constant danger of a sudden attack by an animal from the rear or from ambush. Every one of these conditions or possibilities demands the hunter possess nerves of steel, endurance, presence of mind, alertness and agility.

Local hunters of Sansin and visiting hunters from the nearby villages at the commencement of the hunting season in the Little Hsingan range invariably organize themselves into groups or squads comprising from five to 15 persons. This grouping is forced upon the hunters because of (1) the extreme danger attending them in the pursuit of their game and also for protection in case of a sudden surprise attack; (2) their lack of means with which to purchase powder and provisions for the duration of the hunting season as well as to support their families during their absence from home.

This hunting group is usually financed by one or more Chinese hongs who are usually fur-buyers, the condition being that the hunters so financed, provisioned and armed will deliver all their trophies to the hong who staked them. At the end of the hunting season and on delivery of all the game killed to the hong, the latter is obliged to buy the skins according to the market value at the day when the delivery is made and a final settlement is then made with the hunters.

Obviously under such conditions the fur market was unbalanced, the buyers being united in securing the skins cheaply by forcing their hand against the hunter.

In some of the out-of-the-way corners of bleak north Manchuria where the climate is extremely severe in winter the nomadic hunters readily exchange the pelts for a few ounces of alcoholic drinks or other necessities to protect themselves from the cold.

The open season for shooting game-birds usually commences at the end of August and ends at the beginning of November, but the pheasant, woodcock and woodhen season lasts until February. There are moreover the two-in-between-seasons for bird shooting, when the migratory birds including geese, ducks, quail, snipe, curlew, etc., are in flight; viz., in March and April on their way north and September and October flying south. The river basins of Sungari, Nonni, Mutankiang, Lao-ho and the lakes Dalai and Buir are the favorite resting and nesting places.

The best pheasant grounds are to the east of Harbin and also along the valleys of the Ashiho, Maiho, Lalinho, Mutankiang, Murenho and Suifenho. Equally good pheasant shooting may be had along the middle and lower reaches of the Sungari.

First rate shooting grounds for wild turkey are the eastern spurs of the Great Hsingan range and along the valley of the river Muren. Woodcock are found in large numbers in all the forests and woods throughout Manchuria, the best season being in winter. Heath-cocks are mostly found in the main range of Great Hsingans and the best season for this bird is the spring.

(To be continued)

Japanese Whaling

(Bulletin of The South Seas Association)

Whaling in Japan commenced as early as in the 15th Century with harpooning methods, according to old records. This method of catching whales was adopted in the coastal industries in Wakayama Prefecture, Shikoku and Kyushu. About 170 years later, however, in the vicinity of Omura Bay in western Kyushu, a new method of catching whales by means of a net was devised. This proved more successful than harpooning and reached its height of prosperity around the year 1830, the whaling grounds of the country by then having amounted to nearly 40. But since then it has been on the decline and the latest Norwegian whaling methods have completely taken the place of the former.

Norwegian whaling was introduced in Japan for the first time by the Enyo Fishery Co. established in 1899, as an immediate result of stimulation given by Russian whalers. Russia established a whaling company at Vladivostok in 1891 and since then, having obtained a special licence from Korea, began whaling along the coasts of the country with great success. The meat of the whales was transported to Nagasaki in large quantities and sold at vast profits. Under the circumstances, Japan could not overlook the free unrivalled whaling by Russian whalers in its home waters. Mr. Juro Oka, a native of Yamaguchi Prefecture, organized the Enyo Fishery Co. stated above and commenced whaling with the *Choshu Maru*, of 122 tons gross, built for the purpose.

This was indeed the origin of whaling according to Norwegian methods in Japan and the *Choshu Maru* was the first such ship built for whaling. Operation of the Company was carried on successfully and, greatly encouraged by its success, many other firms came to be established, as many as 12 companies having been organized since 1905.

However, as it was realized that the sudden increase of companies retarded the development of the industry instead of promoting it, and also that it was not good for the protection of whales, the amalgamation of companies took place frequently. In 1909 the then Agriculture and Commerce Ministry, which supervised the whaling companies, issued regulations controlling whaling industry and limiting the use of whaling-vessels of each company to no more than 36 ships. In 1934 the number officially allowed was decreased to 25 as it is to-day.

Whaling of the Antarctic Ocean

The up-to-date whaling industry employing a mother ship and catcher boats was introduced in Japan in 1934 when the Japan Whaling Co. purchased the whaling mother ship *Antarctic* from Norway, which sailed to the Antarctic on its first voyage to Japan from Norway in order to engage in whaling. This vessel, afterwards renamed the *Tonan Maru*, is still engaged in whaling in the Antarctic Ocean every year. In 1936 the Taiyo Whaling Co. employed the mother ship *Nissin Maru*, built at the Kawasaki shipyards for the first time in Japan, which, together with the *Tonan Maru*, commenced fishing in the Polar Seas in the same year.

In 1937 the *Nissin Maru No. 2*, of the Taiyo Whaling Co., and the *Tonan Maru No. 2*, of the Japan Marine Products Co., were built at the Kawasaki shipyards and the Osaka Ironworks respectively, thus four mother ships being now employed in whale fishing in the Antarctic. Then in 1938 the *Tonan Maru No. 3* of the Japan Marine Products Co. and the *Kyokuyo Maru* of the Kyokuyo Whaling Co. were built to add two more mother ships to those already engaged in the Antarctic whaling.

The following table shows the number of mother ships and catcher boats employed in the Antarctic whaling by the three companies, the amount of their catches according to different kinds of whales and the output of whale oil produced aboard the mother ships during 1938-1939 :

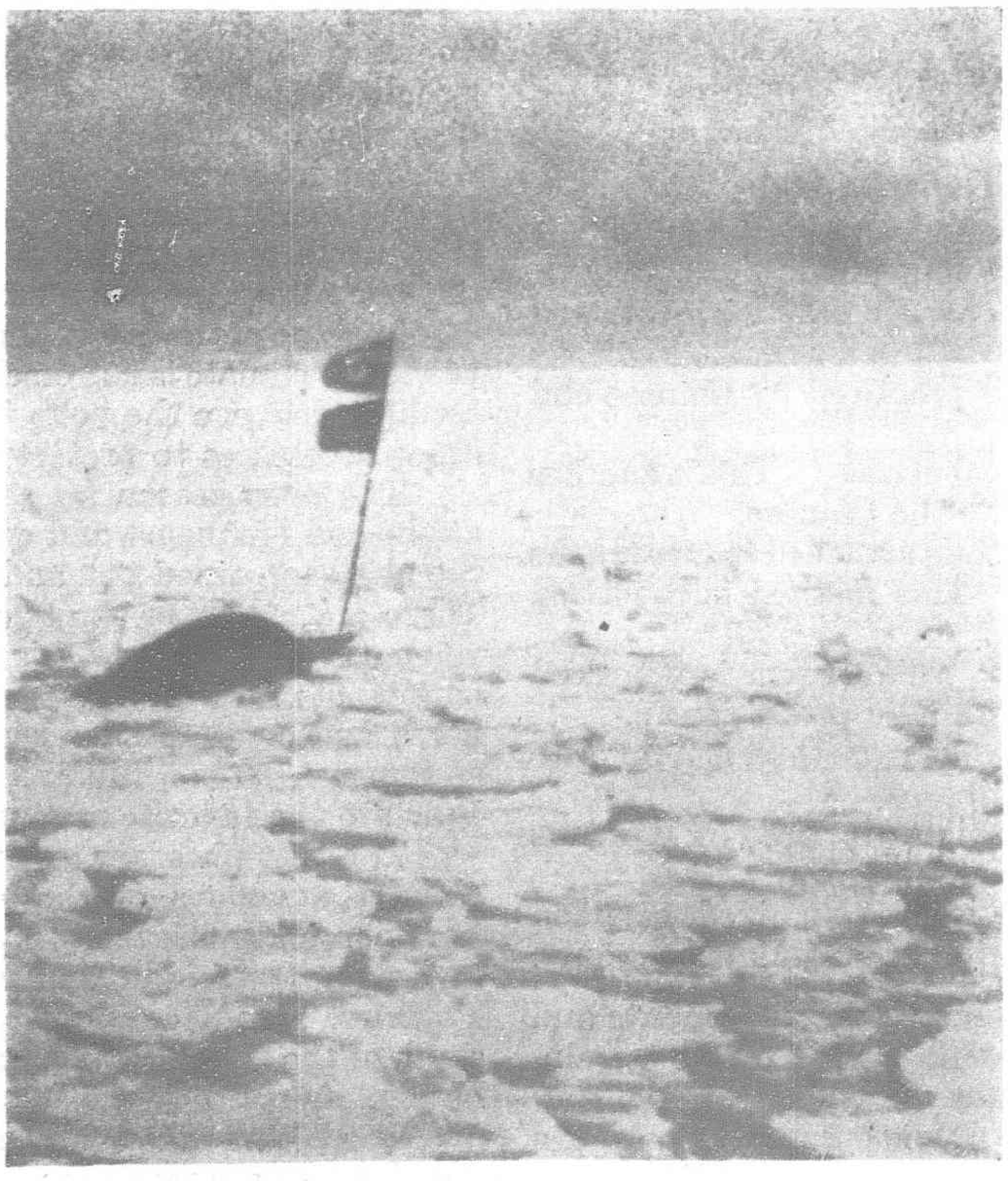
JAPANESE WHALING IN THE ANTARCTIC

(1938-1939)

Companies	*Mother ships*	*No. of catcher boats*	*White sulphur-bottom whales*	*Sulphur-bottom whales*	*Hump-back whales*	*Sperm whales*	*Total*	*Total production of whale oil*
Japan Marine Products Co.	*Tonan Maru*	5	266	196	102	36	600	6,514
,,	*Tonan Maru No. 2*	8	413	655	91	118	1,277	13,175
,,	*Tonan Maru No. 3*	8	416	693	131	133	1,378	14,697
Taiyo Whaling Co.	*Nissin Maru*	10	503	933	147	134	1,717	17,760
,,	*Nissin Maru No. 2*	9	597	510	162	159	1,428	15,713
Kyokuyo Whaling Co.	*Kyokuyo Maru*	9	471	352	250	67	1,140	12,770
Total ..	.. ..	49	2,666	3,344	883	647	7,540	80,629

Notes.—The Antarctic whaling season extends from November 7 to March 15 of the following year.

Figures are based on investigation by the Japan Whaling Marine Products Association in August 1939.

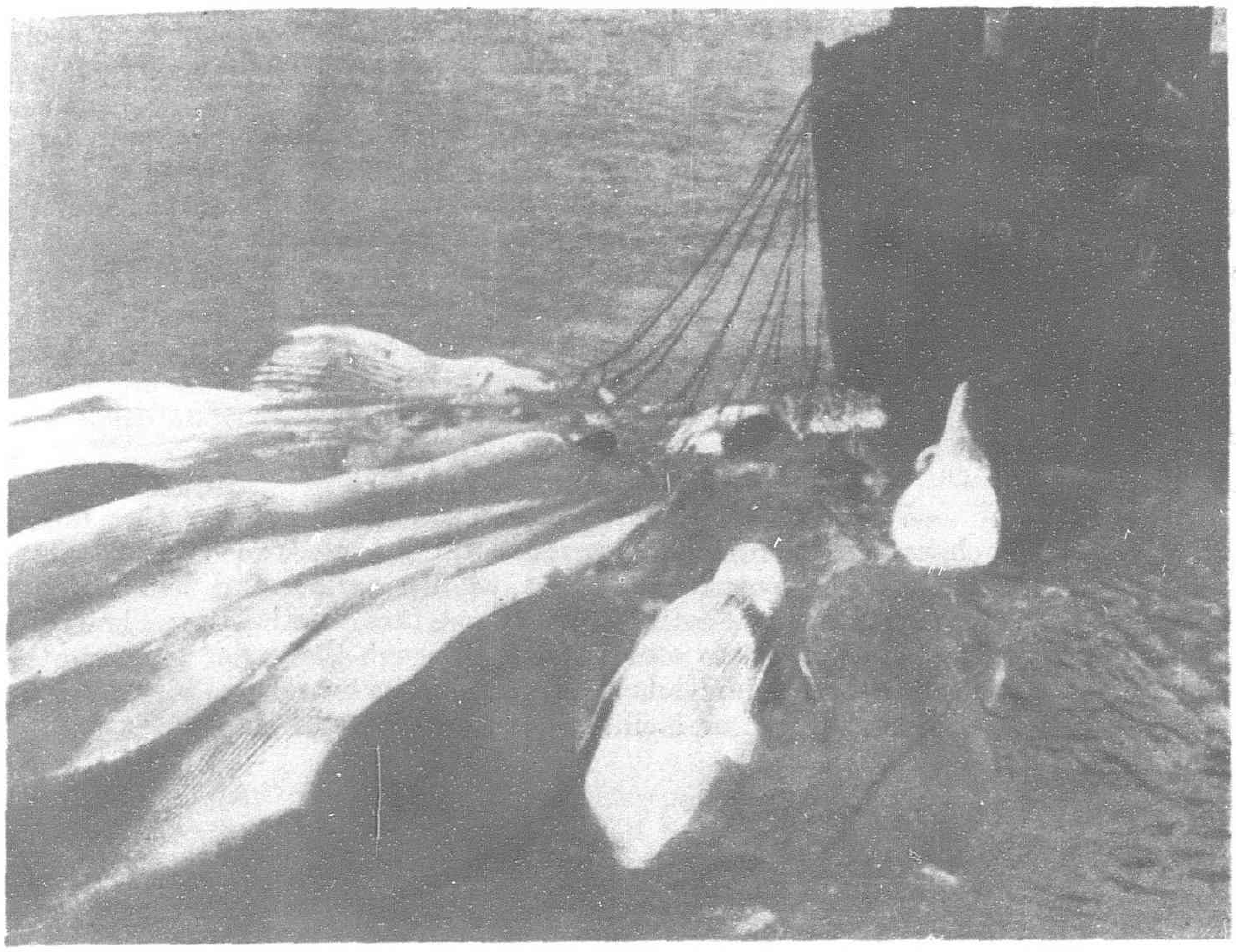


After whales are killed their location is marked among the ice floes by means of flags and they are left adrift until they are towed to the mother ship

Coastal Whaling

In coastal whaling, mother ships are not needed for the catcher boats themselves transport the whales to the coastal bases where dissection, manufacturing and production are carried out. In this respect coastal whaling is vastly different from the Antarctic whaling in which mother ships are indispensable. At the same time, white sulphur-bottom whales are abundantly found in the Antarctic Ocean, while few of them are caught in coastal whaling.

Though the Taiyo Whaling Co. and the Kyokuyo Whaling Co. are engaged in Arctic whaling alone, the Japan Marine Products Co. undertakes coastal whaling as well as Arctic operations. The three companies, Hayashikane Shoten Ltd., Ayukawa Whaling Co. and Enyo Whaling Co., are specially interested in the Japanese coastal whaling. Figures in the following table indicate the number of whalers owned by different whaling companies and engaged in both Antarctic and Japanese coastal whaling, together with coastal bases :



A group of whales moored to a mother ship

WHALING COMPANIES IN JAPAN

Companies	*No. of mother ships*	*Gross tonnage (in tons)*	*No. of catcher boats*	*Tonnage of catcher boats*	*No. of catcher boats*	*Tonnage*	*No. of bases*
Japan Marine Products Co.	3	48,500	21	6,923	19	2,745	24
Taiyo Whaling Co.	2	34,322	19	5,535	—	—	—
Kyokuyo Whaling Co.	1	17,548	9	3,107	—	—	—
Hayashikane Shoten Ltd.	—	—	—	—	4	600	8
Ayukawa Whaling Co.	—	—	—	—	1	181	3
Enyo Whaling Co.	—	—	—	—	1	197	4
Total	6	100,370	49	15,565	25	3,723	39

Notes.—Of the 39 bases given above, 11 are double bases belonging to different *companies ; thus the actual number of bases are 28.*
Figures are according to investigation by the Japan Whaling Marine Products Association.

The areas of coastal whaling are off the shores of the 28 bases at present owned by Japanese, and the principal bases are in the Kurile Islands (5 bases), the Hokkaido (3 bases), Aomori Prefecture, Iwate Prefecture, Miyagi Prefecture, Tokyo Prefecture, Wakayama Prefecture (2 bases), Miyazaki Prefecture, Saga Prefecture, Nagano Prefecture (3 bases), Kagoshima Prefecture, Saghalien, Korea (4 bases), Formosa and Kwantung Province.

Whales captured in the coastal whaling in 1938 amounted to 1,712. The number of whales according to their species were :

White sulphur-bottom whales, 7 ; sulphur-bottom whales, 294 ; humpback whales, 60 ; sperm whales, 797 ; dike whales, 553 and other, 1.

The total production of whale oil in the Antarctic Ocean in 1938 amounted to 80,629 tons and that in the Japanese coastal whaling 85,100 tons. Nearly all of the latter was consumed in Japan, while 69,092 tons of the former were exported, the rest being sold in Japan (Figures of Antarctic production are according to investigation during the season from 1938 to 1939, while those of coastal whaling indicate the whole amount of whale-oil produced in 1938).

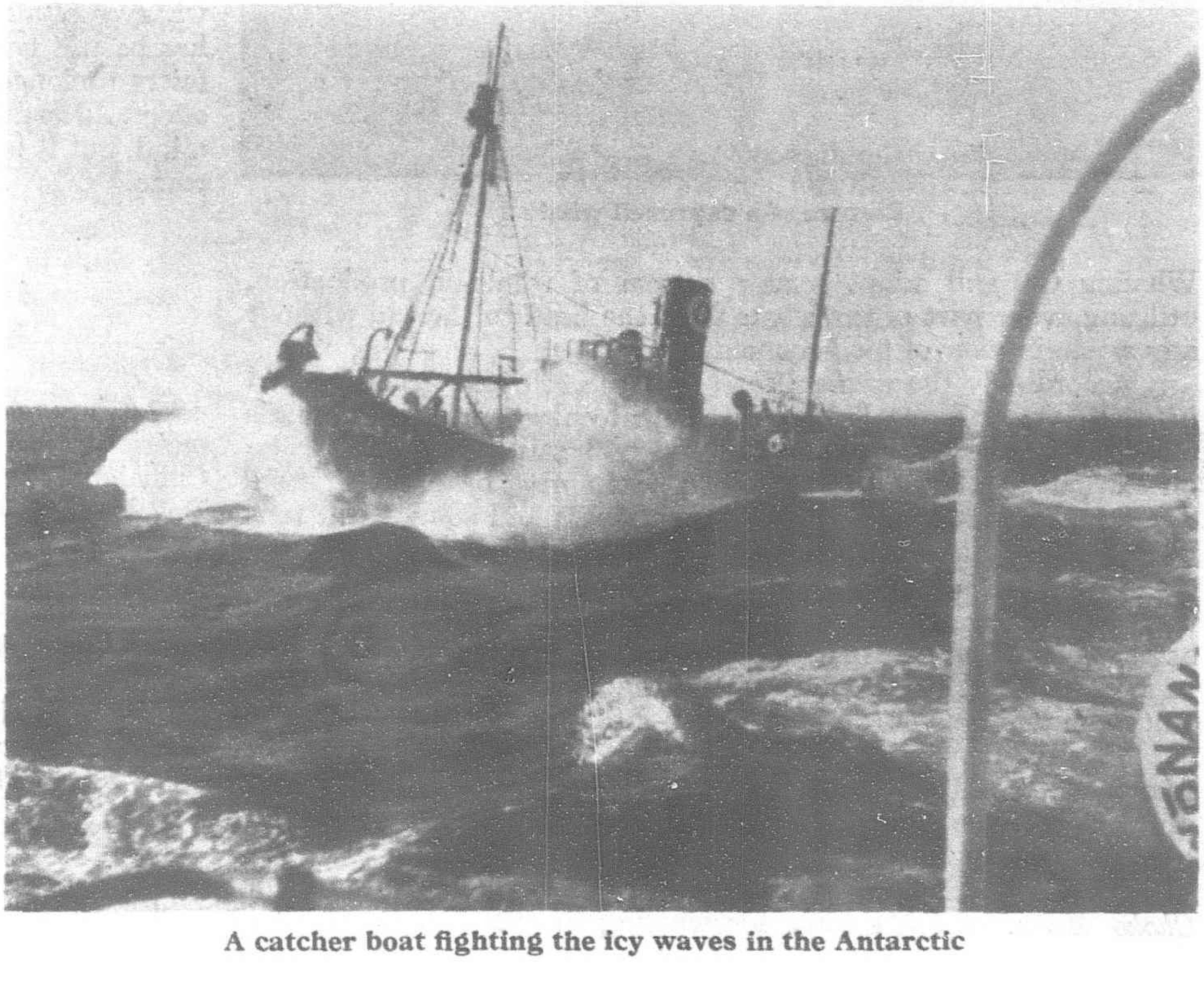
Development of Whale Resources

There is a Japanese proverb that " a captured whale makes seven seashores prosper," by which it is meant when a whale is caught at a fishing village, all the neighboring villages become prosperous because of the work brought about by the captured whale. Indeed, the entire body of a whale is useful, which is made into various kinds of articles needed in daily life. Most of the meat and skins is used for food, while part of the meat, the bones, the intestines and the blood produce oil, the rest of the body being used as fertilizer. Oil is also extracted from the skin and the residue is edible, known as parched residue, while the fins are used as raw material for whale-fin wares.

The uses of whale-oil are many and various and, needless to say, the principal aim of the industry is to obtain it. In recent years, however, new ways of utilizing whale resources have been invented. These products have now become very important and in Japan any and every part of the whale is used for various purposes. Below is given a table showing how the whale's resources are being utilized in this country.

VARIOUS USES OF THE WHALE

Bones	Oil	hardened oil soaps and candles machine-oil insecticide
	Bone meal	bone manure
	Industrial products	artistic industrial products
Whale fins	Industrial products	corsets medical appliances tooth-brushes, brushes and others
Teeth (*sperm whales*)	Industrial products	artistic industrial products
Blood	Fertilizing materials	blood meal
Spermaceti (sperm whales)		for industrial purposes machine-oil, insecticide
Blubber	Salted meat	substitutes for wool leather foodstuffs
	Oil	foodstuffs hardened oil, soaps and candles machine-oil, insecticide
	Parched residue	foodstuffs fertilizers
Lean meat	Fresh meat	foodstuffs
	Fertilizing materials	lean flesh manure



A catcher boat fighting the icy waves in the Antarctic

Tongues	Oil	foodstuffs hardened oil, soaps and candles machine-oil, insecticide
	Parched residue	foodstuffs
Fatty meat	Oil	foodstuffs hardened oil, soaps and candles machine-oil, insecticide
	Parched residue	foodstuffs fertilizers
Intestines		foodstuffs fertilizers medicines *(hormone and others)*

Though Japan has not yet entered the International Whaling Agreement of 1937 for the Antarctic Ocean, it is expected to do so in the course of this year. As a result, Japanese whalers will not be allowed to engage in whaling to the frozen seas to the very end of the season as hitherto. On the other hand, in view of the ever-increasing importance of whale meat and skin, the Japan Marine Products Co., the Taiyo Whaling Co. and the Kyokuyo Whaling Co. will adopt a new system of whale-oil production, utilizing every part of the whale from the head to the tail without any waste in view of food economy.

Picture of a captured whale

Accordingly the whaler *Kosei Maru* (8,300 tons gross), owned by the Japan Marine Products Co., will enlarge her Japan-made flat-tank refrigeration apparatus and will sail for the Antarctic on November 3, expecting to return next spring loaded with some 2,000 tons of whale skin and other products and some 4,000 tons of meat. The Company also is going to add one large whaler and six other craft, all newly built, to carry on its whaling in the Antarctic on a larger scale, in view of the fact that the mother ships, catcher boats and transporter employed hitherto are not sufficient. It is anticipated that in this manner more haul of whales in the Antarctic will be secured in the near future.

The Taiyo Whaling Co., is at present constructing the *Banshu Maru No. 2*, a 1,000 ton refrigeration factory-ship equipped with up-to-date Brine refrigeration apparatus of 400 h.p., which will be completed by November to be employed for whaling in the Antarctic. The Nichiro Fishery Co. will charter the refrigerator *Choko Maru*, of 1,794 tons, for whaling in the Antarctic. The Kyokuyo Whaling Co., established in 1938, is planning to equip the *Kyokuyo Maru* (17,548 tons gross) with modern refrigeration apparatus and also to build a refrigeration whaler of the 4,000 ton class. As these three companies are going to employ such large craft for whaling in the frozen seas simultaneously in order to develop the new resources of whales, their activities in the Antarctic this season are bound to register impressive strides.

The Port of Tientsin

(Continued from page 213)

Whereas the imports into Tientsin are of a rather mixed character (petroleum, cigarettes, textile, piece-goods, machinery, etc.), the exports are almost wholly agricultural and pastoral products, such as cotton, soya beans, furs, bristles, camel hair, etc. Coal is exported to some extent, although the major source in the neighborhood, the Kailan coal field, has its own port, Chingwangtao, with much greater facilities for deep draught ships.

Shipping

The best year recently recorded for shipping is 1933, when 2,302 vessels arrived, of which 2,061 crossed the bar, and 1,008 reached Tientsin. Of these 1,008,139 had a draught of over 13-ft. Since the year 1910 the number of ships has about doubled and the proportion over 13-ft. draught has grown considerably until about 1925. The troubles from the Hun Ho silt deposits are reflected, since that date, in a reduction of the mean draught and also in a much greater proportion of ships not going above Tangku. This is perhaps also partly attributable to the traffic conditions, as the hazards of passing would grow with the total number of ships.

Harbor Plant

The Hai Ho Commission has the following units of plant :—

One bar dredger, described as above.
Four bucket dredgers, one also provided with suction.
Two spoil pumping plants.
Two grab dredgers.
Eleven mud hoppers.
Six ice-breakers
Large sheer legs.
Sundry small vessels, tugs, launches, boats, etc.

In the present complex political situation of Tientsin, it is quite impossible to indicate its future. Schemes exist on paper for wharves of a more modern type near the entrance, but until there has been a very considerable revival of commercial activity and a fairly prolonged period of peace no such schemes can be put into effect. Japanese interests are reputed to have harbor schemes in mind, but it is not clear from whence the capital for such work can come.

Manganese Deposit Discovered

A huge manganese vein estimated to contain over 10,000,000 metric tons of this metal was recently discovered in Chinhsi-hsien, Chinchow Province by mining experts of the Manchuria Mining Development Company. The discovery of this immense deposit has been hailed in both Japan and Manchoukuo, as it is expected to make the two countries self supplying in this important mineral, of which there has been an acute shortage since the outbreak of the European War. Most of the manganese used in Japan and Manchoukuo in the past has been imported from India.

Exploitation of the newly-discovered mineral deposit will be undertaken by the Mining Development Company through a new subsidiary to be formed with the participation also of the Showa Steel Works and the Penhsihu Coal and Iron Works. Negotiations are now being conducted with the authorities concerned for the formation of this company which will be capitalized at about five million yuan.

Agricultural Co-operation in the Philippines

By RIZAL F. GATICA

Agricultural co-operation is of recent origin in the Philippines. It was first introduced in the year 1915, with the enactment of a law by the Philippine Assembly providing for the organization of agricultural credit co-operative associations under the supervision of the Executive Secretary. But the first association to operate under this law was formed a year later, in 1916.

Of course agricultural co-operation in its simple form dates back in history in the Islands, perhaps it even started with the advent of home agriculture, when the people began to acquire farm lands to supply the needs of the family clan. The construction of a house of a farmer was made a co-operative undertaking with several farmers in the village helping. The plowing of the field and the harvesting of crops were also done with the co-operation of neighbors.

But in modern phraseology of agricultural economics the simple way of agricultural co-operation has not come into discussion by economists. For at present when one speaks of agricultural co-operation he means either the financing of farm production or the financing of marketing of farm crops. In other words, agricultural co-operation as this subject of rural economics is known to-day is a simple banking system to provide credit for farmers for the financing of production and marketing of their crops.

Agricultural co-operation in the Philippines has helped thousands of small farmers scattered throughout the country and has saved them from falling into the hands of loan sharks, thus preventing the possible loss of their farms upon which their living and that of their families depend. This is particularly true in rural communities where banking or credit facilities are totally lacking, and where usury has held supreme for many years.

Before the enactment of the Rural Credit Law, known as Act No. 2508, providing for the organization of rural credit associations, small farmers were at the mercy of money lenders who charged usurious rates of interest, and very often the lands of these farmers were confiscated and passed to the hands of the money lenders after the farmers failed to pay their mounting debts, a factor which led somewhat to the concentration of agricultural lands in the hands of a few. It is a sad fact but nevertheless true that many Filipino and Chinese fortunes in the provinces were built on usury.

Early Efforts Fail

Prior to 1915 attempts had been made by some members of the Philippine Assembly for the organization of rural credit associations but their attempts failed. There was a plan of the Assembly way back in 1908 when it passed a bill, introduced by Alberto Barretto, then assemblyman from Zambales, providing for a special type of agricultural credit co-operative associations patterned after the " Raiffeisen " system in Germany. The bill, which was originally drafted by the late Teodoro Sandiko, then governor of Bulacan province, failed to pass the Philippine Commission which was then the upper house of the law making body in the Islands.

Before this, however, the Philippine Commission recognized the need of credit facilities for the farmers in the Islands due to the deplorable farm conditions then obtaining. In 1900 the Commission recommended to the United States Secretary of War the creation of mortgage banks or the extension of the rights of commercial banks to give loans to farmers. But instead of this plan and of the bill of Mr. Barretto an agricultural bank was organized in 1908. However, this bank was later abandoned and absorbed by the present Philippine National Bank due to its inability to respond to the needs of the farmers because only a few of them had bankable collaterals.

In 1914 Rafael Corpuz, who succeeded Alberto Barretto as member of the Assembly from Zambales, revived the idea of his predecessor and introduced a bill to regulate the creation and operation of rural credit co-operative associations. The bill passed the Assembly and was sent to the Philippine Commission. Under the sponsorship of Commissioners Rafael Palma and Vicente Singson Encarnacion, the bill passed the Commission with the amendments of granting the associations certain privileges and exemptions on February 5, 1915, becoming Act No. 2508 as approved by the Governor General.

Act is Amended

In 1916 the law was amended to give the authority to organize and supervise credit associations to the Director of Agriculture. The Director then created a rural credit division in his bureau, placing it under the supervision of an American, A. W. Prautch, who because of his vigorous campaign against usurers throughout the Islands earned the name of " Terror of the Usurers." The Rural Credit Division was later redesignated Division of Agricultural Economics in the Bureau of Plant Industry when the Bureau of Agriculture was split into two bureaus, the other bureau being named Bureau of Animal Industry.

The first association established under this new arrangement, and incidentally under the Act, was in Cabanatuan, Nueva Ecija, on October 19, 1916. Since then the work of the bureau to organize associations resulted in satisfactory response from the farming regions, and three years later, in 1919, there had been organized 418 associations with a total membership of 45,609 farmers, and a capital of P.509,234, and loans amounting to P.1,299,455.

Ten years after the first association was formed in Cabanatuan a total of 544 associations had been organized in 42 provinces, with a total membership of 87,535, and a circulating capital of P2,570,587. At the end of 1939 the associations formed totalled 570 scattered in 43 provinces with 105,084 members. The amount of capital invested was P.965,418, and circulating capital P.3,376,418. During the year there were 55 associations which paid cash dividends amounting to P.66,850.

To help finance the activities of the associations and to encourage the production of rice and corn when the Islands were facing a serious shortage of these cereals as a result of the effects of the World War the Philippine Legislature in March, 1919, created the Rice and Corn Fund through Act No. 2818 with an appropriation of one million pesos. The fund was made available to the associations at six per cent interest and the associations in turn charged ten per cent interest to the members. The Fund was first administered by the Department of Agriculture and Commerce, formerly named Department of Agriculture and Natural Resources, but in 1933 was transferred together with the credit associations to the supervision of the Bureau of Commerce under whose supervision also fall the co-operative marketing associations organized under Act No. 3425.

A Revolving Fund

The Rice and Corn Fund is now known as Agricultural Co-operative Fund and has been made a revolving fund. The Fund is now under the administration of the Agricultural and Industrial Bank which was created by Commonwealth Act No. 459, enacted June 9, 1939, to provide adequate credit facilities to farmers and to industrial establishments in the country.

Other measures designed to give further financial aid to Filipino farmers were the act of the Philippine National Bank in 1921 setting aside the sum of P.500,000 to be loaned to credit associations and the passage of the Guanco Law, known as Act No. 3154, in 1924, providing for the organization of provincial banks. In 1934 the Philippine Legislature also passed Act No. 4169 authorizing the " Postal Savings Bank, the loan board and other government bodies and offices authorized by law to grant loans, to grant new loans, or extend the time for the payment of loans heretofore granted to . . . rural credit associations to a period not to exceed twenty years . . . "

In November, 1931, the Legislature again enacted two laws designed to render financial help to farmers. Act No. 3895 provided for the creation of another type of rural credit association under the supervision of the Philippine National Bank, and Act

No. 3896 provided for the organization of rural banks also under the supervision of the Bank. The Philippine National Bank was able to establish ten rural credit associations and about six rural banks in the provinces, but it was reported that the Ca-Ba-Lag rural bank of the Ca-Ba-Lag Farmers Association in Calamba, Laguna, is the only one now in active operation, the rest having been dissolved or abandoned. The Ca-Ba-Lag rural bank is reported to be making progress in its operations, rendering the necessary financial aid to farmers.

Adverse Factors

In the operations of these credit associations several problems have arisen which have defeated the primary objects for which they have been established. Affairs of many associations were abandoned because the directors or the members themselves did not hold regular meetings, and collection of loans were neglected. Loans with inadequate securities were accepted and left unpaid over a long period of time. In many cases the directors and other influential individuals in the communities controlled the management of the associations for their own personal interest, obtaining most of the loans and leaving nothing to other members, majority of whom were small independent farmers.

The credit problems of small farmers have not been entirely solved with the establishment of rural credit associations and other agencies designed to provide more adequate credit facilities in farming communities. Many farmers still find themselves in financial difficulties during and after harvesting of their crops, a condition which exists especially in rice producing provinces. Any loan which they are able to obtain from credit associations is only enough to tide them over till the end of planting season, and nothing is left for them during and after harvest time.

Owners of rice mills and other middlemen, mostly Chinese, who buy rice from farmers are thus able to dictate the price to a low level during harvest season, thereby depriving the farmers of a just and equitable return for their produce. During planting season the harvest of farmers is practically in the hands of Chinese rice millers and dealers, and farmers are then forced to borrow money from usurers, or buy rice on credit from these Chinese rice merchants who also charge usurious rates of interest, generally one sack of rice is paid back after harvest with five or six sacks of palay (unhulled rice).

Remedies are Applied

To remedy this deplorable condition, the Philippine Legislature enacted a law, Act No. 3425, providing for the organization of co-operative marketing associations to supplement the credit facilities given by rural credit associations. Co-operative marketing associations, which are also under the supervision of the Bureau of Commerce, are empowered to borrow money and grant loans and advances to members who store their produce with the associations while waiting for better prices for their crops. These associations are " operated primarily for the mutual benefit of the members . . . as producers, and should aim to promote, foster, and encourage the intelligent and orderly marketing of agricultural products through co-operation; to make the distribution of agricultural products between producers and consumers as direct as can be efficiently done; and to stabilize the marketing of agricultural products."

The first co-operative marketing association organized under Act No. 3425 was the Philippine Co-operative Livestock Association, in Manila, on March 28, 1928, but this association has long been dissolved. The Iguig Tobacco Growers Co-operative Association, in Tuguegarao, Cagayan, was the second association formed, on November 2, 1928, and is still in operation.

At the end of 1939 there were 168 marketing associations in existence throughout the Islands but only about 31 are in active operations. However, those which are not active have not been dissolved and may resume operations in the near future. During the past year these associations marketed agricultural products valued at P.5,875,948, and in 1938 the value of products sold was P.7,007,417. Farm products handled were corn, leaf tobacco, rice, sugar, copra, coconut, abaca, vinegar and other farm crops produced or articles manufactured by farmers.

Various Disadvantages

Like the rural credit associations the co-operative marketing associations have also been confronted with problems of their own. Due to inadequate funds of some associations loans given to members are not enough to last them for some time waiting for higher prices, and members are forced to withdraw their products from the associations and sell them at whatever price they could get from Chinese merchants. In many rural communities marketing associations do not have warehouses to store the products of the members, in which case the associations are forced to deal with Chinese or Filipino rice millers, an arrangement which often results to the disadvantage of the members because they are storing their products in warehouses of their own competitors in the business. In some cases mismanagement have been reported in many associations.

The operation of agricultural credit co-operative associations has somewhat been more successful than that of co-operative marketing associations, although both types of credit associations are under government supervision. The Bureau of Commerce has supervision on these associations, but its supervision on rural credit associations is reportedly closer and more rigid as these associations handle a larger amount of government money which has been loaned to them through various funds established by law. The Bureau's supervision on marketing associations is generally advisory in character.

There is no doubt that rural credit associations and the marketing associations have been able to render the necessary financial aid to thousands of farmers in the country during the past two decades. And with the government still determined to give adequate protection to the interest of Filipino farmers, providing all the necessary facilities which in equity and justice are entitled to them in order to raise their income and better their living, these associations under proper management and supervision will still be able to give greater help to Filipino farmers in the future, and at the same time their important rôle in the economic life of the farming communities will become better understood and appreciated by the people.

IRON MINING IN MONGOLIA

The Lungyen Iron Mining Company, which was formally established in May this year with a capital of Y20,000,000, is now actively engaged in exploiting the rich iron deposits found in the vicinity of Hsuanhwa, about forty miles south-east of Kalgan.

Prior to the inauguration of this company, the actual operation of the mine was left in the hands of a private concern; but since that time it has been taken over by the Federated Autonomous Government of Mongolia and at the same time the North China Development Company at Peking has decided to join in taking a part in the enterprise.

The mine includes three different lots, with a total estimated deposit of 120,000,000 tons, with an iron content of from 54 to 60 per cent and in some cases as high as 95 per cent.

With its head office at Kalgan and branch offices at various other places, the company is not only operating the Yentung lot, but is also constructing a railway siding leading to the Lunghuapao lot, where the richest deposits are found. Operation there is expected to begin within this year. Further, it is planned to complete another railway leading to the third mine, the Hsinyao lot, by next year.

According to present estimates, it is possible that the company may be able to produce about five hundred thousand tons of ore within this year; but in a few years it is expected to produce at the rate of 2,000,000 tons a year.

Economic and Trade Developments in Manchuria

(U.S. Commerce Reports)

Under date of December 9, 1939, Consul William T. Turner, Dairen, reviews certain economic conditions in Manchuria, particularly the Kwantung Leased Territory. Practically no exports of soybeans other than to Japan, he reports, have been made since the new Staple Products Monopoly assumed control on November 1. The Monopoly was unable to acquire any considerable stocks of beans because of the unwillingness of the farmers and dealers to sell at Monopoly prices which, the consul reports, were far below the actual value of the beans and completely out of line with the prices of other farm products. Thus, the farmers and dealers appear to have instituted a sellers' strike, and to be "sitting tight" with their stocks of beans in the expectation or hope for some change for the better. In this hope they are maintained by the knowledge that on the "curb," or unofficial exchange, which had sprung into being with the abolition of the bean exchange, the price of beans had risen well above Y12 per picul, as compared with Y7 and less fixed as official prices (Y1 is equivalent to about $0.24 ; the picul equals 133⅓ pounds).

Rail Transportation of Beans to Germany

German officials in Manchuria were reported as exploring with local authorities the possibilities of transportation over the Manchurian and Trans-Siberian railways to Germany of soybeans and bean oil in exchange for manufactured products. Local advices reported that the South Manchuria Railway Co. was in negotiations over the matter with the Soviet Government, but that there appeared many obstacles to the plan. One publication declared that it would be extremely difficult, if not impossible, to export beans to Germany by rail, owing to the high freight costs, as borne out by experiments in 1932 when a shipment of two carloads of soybeans proved to be prohibitively expensive. The necessity of reloading at Manchuli on the Soviet border, the deleterious effect on beans and bean oil of the excessive cold of the Siberian winter, and shortage of freight cars in the Soviet Union are considered the main obstacles.

Increase in Capital of the South Manchuria Railway

Since late in 1938, increase in the capitalization of the South Manchuria Railway has been under consideration as a means for providing funds to carry out the huge new projects assigned to the company as its part in the exploitation and defense of Manchuria and North China. On December 8, 1939, it was announced that the Japanese Cabinet gave its approval to an increase of the company's capitalization by Y600,000,000 to a total authorized capital of Y1,400,000,000. Of the new capital, the Japanese Government is to supply half, or Y300,000,000, the stockholders 200,000,000, the Manchoukuo Government 50,000,000, and the remainder from various sources.

It is of interest to note particularly that participation by the Manchoukuo Government in the ownership of the South Manchuria Railway Co. is a complete departure from previous policy but it has received the final approval of the Japanese Government. As the Manchoukuo Government has no funds to spare for investment, it is believed that its contribution will probably be in kind, such as its equity in the properties of the former Chinese Eastern Railway, and others.

Foreign Trade Registered Gains in Earlier Part of 1939

Manchuria's foreign trade increased appreciably in the months prior to the outbreak of the European War. During the first seven months of 1939 exports increased by 22 per cent, from a value of 460,000,000 Manchoukuo yuan—or $125,635,000 in United States currency—in the first seven months of 1938, to 561,622,000 yuan, or $153,323,000, according to a report from Vice-Consul Morris Pasquet, Dairen, under date of December 12, 1939. The export gain resulted from larger sales abroad of soybeans and their products, maize, or Indian corn, millet, small red and green beans, and perilla-oil seeds. Japan, including Formosa and Chosen, continued to be the principal purchaser of Manchuria's exports, with a share of 59.48 per cent, and increased the value of its imports from Manchuria by 27 per cent. China was Manchuria's second best customer with 19.64 per cent of Manchuria's total exports, or an increase in its purchases, compared with the same period of the preceding year, of approximately 50 per cent. Germany came up from fourth to third place by increasing its purchases of Manchuria's produce 34 per cent and taking a share of 7.85 per cent in the trade, while Egypt dropped back to fourth place with a loss of 28 per cent in its imports from Manchuria.

The United States continued to occupy fifth place among the countries of destination of Manchuria's exports but with increased purchases of 8.8 per cent, which brought its share in Manchuria's total exports up to 1.71 per cent.

Japan and Germany Take More Soybeans

Exports of soybeans—the leading export item—increased in value by 24,347,000 yuan ($6,645,000), or by 16 per cent, and by seven per cent in tonnage during the January-July 1939 period. Shipments to Japan the principal market, increased 24 per cent in volume and 37 per cent in value, while exports to Germany—a second important market—increased 42 per cent in volume and 59 per cent in value.

The largest decrease in soybean shipments was to Egypt, which were smaller by 30 per cent in volume and 29 per cent in value. A larger proportion of soybeans was formerly consigned to Port Said, but in order to credit Germany under the German-Manchoukuo barter agreements with all shipments eventually reaching it, exporters in Manchuria are now designating that country as the destination at the time of export. Hence, the drop in exports credited to Egypt.

Appreciable decreases were noted also in exports of soybeans to Great Britain, Hongkong, Denmark, and the Netherlands, owing to prevailing local high prices as compared with the prices of American soybeans and with oil seeds obtainable elsewhere.

Japan the Principal Source of Manchurian Imports

Total imports into Manchuria from all countries continued to increase during the first seven months of 1939, rising to a value of 934,098,000 yuan ($255,009,000) from 658,144,000 yuan ($179,673,000) during the corresponding period of 1938, or an increase of 41 per cent. Japan contributed by far the largest share, 82.41 per cent. The United States followed far back with 5.13 per cent; China, 4.5 per cent; Germany, 3.38 per cent; and Great Britain, British India, and Hongkong together contributed 2.13 per cent. While Japan as Manchuria's principal source of supply, increased its exports to that area by a value of 267,964,000 yuan ($73,154,000), or 53 per cent, the United States still managed to maintain its rank in second place, despite a decrease in its exports to Manchuria amounting to 18,159,000 yuan ($4,957,000)—a decline of 27 per cent.

Exchange Restrictions Curtail Imports from the United States

The decline in imports from the United States resulted from the effects of the exchange control restrictions imposed on imports from all countries except Japan. The most important single decrease took place in imports of American iron and steel, which were smaller in value by $6,412,000, or 77 per cent. Ginned cotton imports decreased by $1,788,000, or 94 per cent. China is now the largest supplier, furnishing about 60 per cent of Manchuria's total raw cotton imports, while, owing to exchange control restrictions affecting imports from countries outside the "yen bloc," cotton imports from the United States and British India decreased by 80 and 94 per cent, respectively.

British Malaya is Market for American Goods

(Based on Reports of Acting Trade Commissioner Charles O. Thompson, Singapore)

"It is fortunate that a considerable number of representatives of American manufacturers are in Malaya at present, as it is an appropriate time for presenting American lines," writes the Acting American Trade Commissioner in Singapore, reporting on recent economic and trade developments. Many inquiries are received at his office concerning American products, and it is opportune when possible to refer callers to local representatives.

Conditions growing out of the war in Europe have stimulated business activity in British Malaya. Following recent increases in tin and rubber export quotas, smelters are working at near capacity and it is difficult to procure sufficient rubber to fill booked shipping space. Although tin shipments arriving in the United States and *en route* are considered well in excess of immediate industrial needs, New York middlemen continue to transmit buying orders. Prices of rubber and tin have risen, and production capacities for both industries are being expanded, with consequent substantial improvement in employment. Improved native purchasing power has so stimulated bazaar sales that importers' stocks at the close of October were the lowest in any recent period.

Factors tending to retard what otherwise might develop into boom activities are the many uncertainties concerning foreign trade controls, including exchange regulations, general perplexities in regard to European developments, and other psychological reactions. There is also, in some instances, an inability to secure products from former suppliers or to substitute new sources of supply.

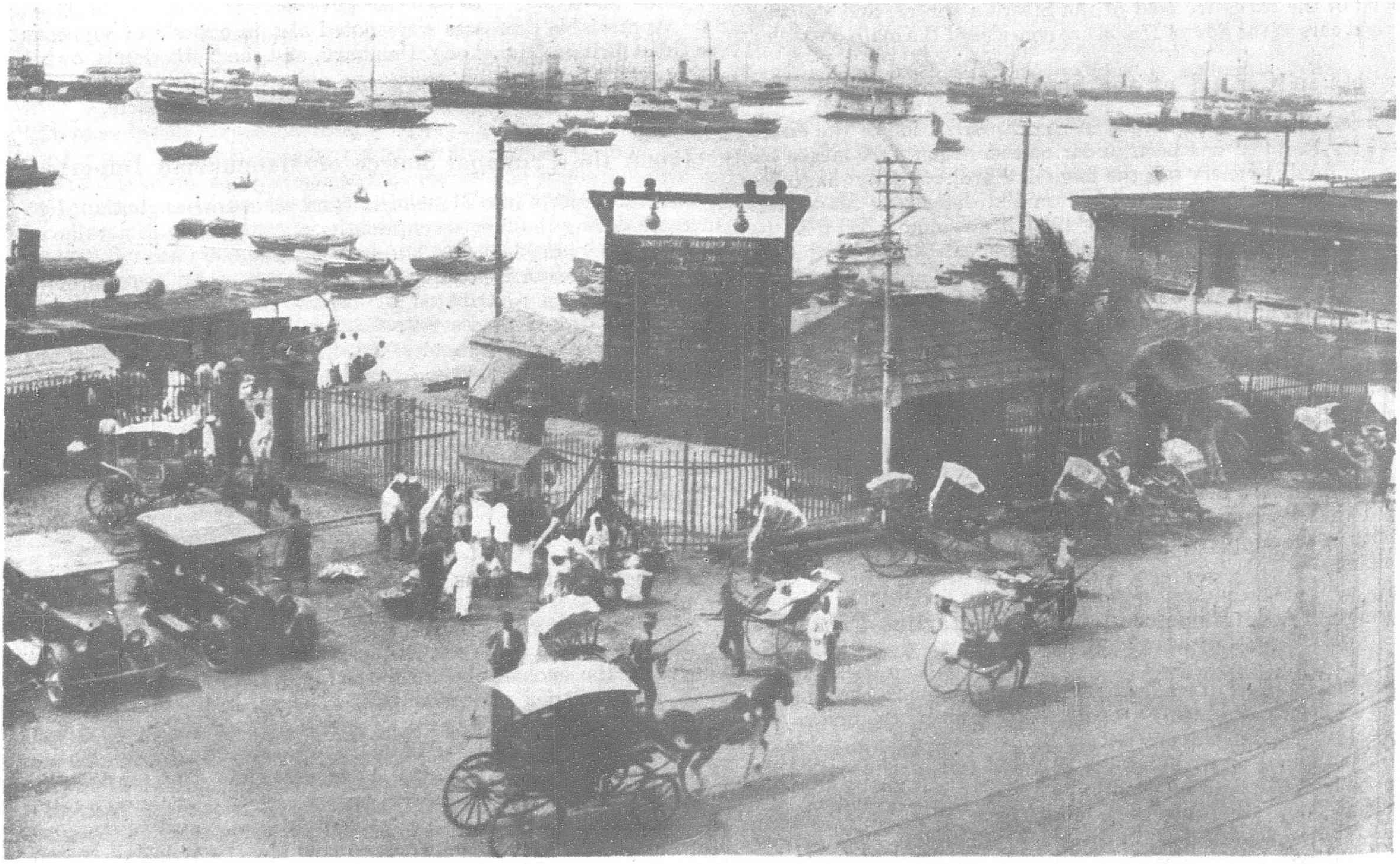
Importing, however, is holding up well. Deliveries have been interfered with less than anticipated, and shipping facilities from the United States thus far are adequate. With the transfer of considerable American shipping from the Atlantic to the Pacific, improved accommodations are expected.

Imports from U.S. Gain

Information is not available for later than September, but even by then increased imports from the United States were reflected in a gain of 38 per cent over the previous month, with the largest monthly total since January. German goods shipped prior to the outbreak of war continued to arrive early in September, but the month's total was approximately one-third that of August. Imports from the United Kingdom also declined nearly a third, while those from Australia were substantially lower—largely the result of an inability to supply coal and machinery because of restricted shipping space.

General retail demand for imported commodities has been somewhat erratic, but active in most essential lines. While importers' stocks are lower, small dealers are reported to be holding back stocks to some extent anticipating higher prices. Tendencies toward hoarding and profiteering are believed to be well under control, although price advances have occurred in most lines of trade. In some cases prices are fixed at specific figures, in others at 10 to 20 per cent above those prevailing on August 30. In the case of unregulated commodities, prices generally have risen to a somewhat greater extent. In some instances price control has been a deterrent to placing new orders, since replacement costs have been in excess of permissible maximum prices.

Demand for textiles is good, but shipments have been retarded and there is difficulty in securing quotas and exchange allocations. Building materials also are in good demand, but exceptional sales expansion is restricted by rising prices and difficulties in



Singapore harbor as seen from the American Consulate

High Street, Singapore

Malay Street, Singapore

securing supplies, most available supplies being commandeered for defense purposes. Cement has been especially difficult to obtain, and inquirers have indicated that purchases may eventually have to be made in the United States, although American cement is considerably higher priced than that obtained from the usual sources, the United Kingdom, Hongkong, Yugoslavia, and French Indo-China. The supply of Japanese cement, formerly a very important factor, is curtailed because of Japan's own needs.

Chemicals from United States

Hardware, chemicals, and other mine and estate supplies are moving into consumption at an accelerated rate. Elimination of Germany as a source of formic acid may result in some shortage in rubber coagulants, prices of which have increased substantially in spite of control. Fairly large orders of acetic and sulphuric acids have been placed in the United States to replace formic.

Business in dredging equipment and supplies is active and increased American participation is indicated. Iron and steel manufactures also are active, especially black and galvanized sheet, but importers report inability on the part of American suppliers to accept orders.

Sales of automobiles are believed to have held up well, largely the result of favorable prices and anticipated difficulties in securing future supplies. An increase in gasoline prices is expected to possibly reduce the sales possibilities of American cars, already handicapped by registration taxes and the altered exchange rate. Dealer demand for tires and tubes has caused importers' stocks to largely disappear.

Business in radio sets, which boomed in September, has returned to normal levels. Demand for household refrigerators is fair. Sales of office equipment, supported to some extent by Government purchases, have increased. Over-issue newspapers are selling at high prices, and stocks are depleted. Newsprint stocks also are low and efforts are being made to secure shipments from the United States of both newsprint and wall-board, owing to closing of the usual Baltic sources.

Demand for provision lines is good, the result both of increased purchasing power and rising prices. There are possibly opportunities for American match manufacturers in this market at the present, if prices are right.

American Products Desired

In spite of the handicap of an appreciated American dollar in terms of the Straits dollar, which is tied to the pound sterling, demand for American products is excellent and the outlook for increased business in many lines—notably chemicals, building materials, hardware, paper and paper products, glassware, provisions, and textiles—is believed promising.

The chances of greater American participation depend to some extent upon efforts of the Government to restrict trade within the Empire and limit importation of lines considered non-essential. As an integral part of the British Empire, Malaya has been subjected to many emergency measures for the control or regulation of communications and transportation and many phases of industry and trade, including production, consumption, prices, export licenses, and import permits for a number of commodities. Gold holdings, dealings in foreign securities, and foreign exchange transactions affecting currencies on a non-sterling basis have been subject to control since mid-September.

Applications for foreign exchange are reportedly receiving increasingly careful scrutiny, especially those involving substantial sums. Exports to non-sterling countries are now permitted only after satisfactory evidence has been produced that payment will be made, although certain exceptions occur in large tin and rubber transactions, payment for which may be made in London as heretofore.

Export licenses have been imposed on foodstuffs, engineering and medical stores, and many classes of essential materials, such as ores, dyestuffs, tin, crude rubber, copra ; practically all Malayan exports. The main purpose of export licenses is to control the ultimate destination of shipments rather than to limit them.

Permits Required

Import permits are required to purchase from countries not on a sterling basis, mainly products considered of a less essential nature. Imports at present regulated include engineering stores and equipment, flour, milk, sugar, liquors, tobacco, electrical equipment, machinery, proprietary medicines, and cosmetics. Announcements concerning further restrictions are expected momentarily, but intimations are that only about three per cent of the country's total import trade will be restricted to sterling-bloc countries, with the balance regulated according to merits. The purpose of import licensing in some cases is to regulate consumption, in others to limit importation of commodities deemed non-essential.

Oil Strata Found Near Tokyo

A deposit of crude oil has been discovered practically on Tokyo's doorstep, and it is estimated that the field covers about 30,000,000 acres, according to the *Nichi Nichi*. The find was made by Mr. Kichiji Komura, a mining promoter, of Itabashi-cho, Itabashi Ward, who came upon traces of petroleum quite by accident while strolling in the suburbs.

While on a walk, Mr. Komura saw oil floating on the surface of rice fields located far from any factories which might have been its source. He lost no time in investigating and filed oil-drilling claims with the Tokyo bureau of mines.

He was given permission to drill and work started immediately with the co-operation of Mr. Iwakichi Watanabe, an oil prospector of 40 years' experience in the Niigata fields.

A test bore was sunk to a depth of 40 feet when the drill brought up earth containing a large quantity of petroleum, and it has been decided to start drilling on a large scale.

The oil-bearing strata discovered by Mr. Komura is said to extend north to Omiya and south of Yoshida-cho, Itabashi Ward. It is expected that the area will be able to produce about 190,000 barrels of crude oil a day.

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Search for Oil in the Philippines

(The American Chamber of Commerce Journal, Manila)

THE presence of oil and gas seepages in the Philippines has long been noted. As early as 1890 Abella published a paper calling attention to oil seepages in Panay, Cebu, and Leyte. In 1893, Alfred White claimed to have discovered oil in Cebu and tried to secure the sole right of exploitation of oil there and in Negros and Leyte. In 1896, Smith, Bell started the first test well near Toledo on the west coast of Cebu. Two holes were abandoned after reaching depths of 244 and 344 meters respectively. Interest in these workings was revived in 1921 when the Visayan Petroleum Co. obtained claims in the district. However, drilling operations were not carried on.

After the American occupation in 1899, interest in oil was centered chiefly in Tayabas, where several seepages of a light oil and inflammable gas were found. In 1906, several companies were organized for the exploitation of these areas. Very little work was done, however, until the Tayabas Oil Association did some test hole work on the Bondoc Peninsula near the seepages occurring in the vicinity of the Bahay River. One hole was drilled by E. J. Cooke near Malipa Creek, a tributary of the Vigo River. In 1910, the Bay Valley Oil Co. drilled a well in the same locality to approximately 100 meters without any better results. On the Maglihi anticline three shallow wells produced a small quantity of oil in 1918.

In 1921 the Richmond Petroleum Co., a subsidiary of the Standard Oil Co. of California, made a fairly extensive exploration of the Islands and decided to drill in the Bondoc Peninsula. Four wells were drilled to depths of 1,599, 403, 1,145 and 188 meters respectively. Traces of oil were found in most of the holes and one hole made 95,000 cubic feet of dry gas per day. Our present knowledge of the area shows that most of these wells were not drilled on favorable structures. In 1924 all the concessions were abandoned and most of the equipment removed, after the company had spent $1,250,000.

Interest again lapsed for some years, until 1934, when companies were formed for oil exploration and exploitation in the Islands. Claims were obtained in various parts of the Islands by numerous individuals and companies. In 1936 most of these permits were cancelled by the government.

At the present time the Far East Oil Development Co. is carrying on drilling operations inland from San Andreas, Tayabas. The work was at first carried on with the equipment on hand, but lately heavier and more modern equipment has been available. The geological work has been under the supervision of Mr. Grant Corby of Los Angeles.

In 1938 a proposal was made to turn over all exploration and exploitation rights in the Philippines on the basis of bids to one of the larger companies. The Standard Vacuum Oil Co., which was the only bidder, was turned down.

At the beginning of 1939, the government-owned National Development Co. took over the work of making the survey of the various districts in which oil possibilities were thought to occur. Mr. G. Anonas, of the National Development Co., has announced that the work will be under the direct supervision of Mr. Grant Corby and Mr. H. Norton Johnson, the latter devoting part of his time to the National Development Co. and the rest to the Far East Oil Development Co.

A group of American geologists is expected to take up this work. The following men have been engaged: Joseph Hollister, Willis P. Popence, R. M. Kleinpell, G. Anderson, C. N. Nelson.

A budget of P.250,000 has been set aside for the first years' work which will be carried on in Cebu, Leyte, the Bondoc Peninsula, the Cagayan Valley in Northern Luzon, and Cotabato in Mindanao.

During the first year no drilling will be done. All efforts will be expended on securing geological information from surface exposures.

The surface indications and structural conditions which are known to exist in the Philippines, offer great potentialities.